

THE SCHOOL FRIEND,

AND OHIO SCHOOL JOURNAL.

VOL. V.

CINCINNATI, JULY 1, 1851.

NO. 10.

THE SCHOOL FRIEND, AND OHIO SCHOOL JOURNAL

PUBLISHED MONTHLY,
BY W. B. SMITH & CO.
No. 52 Main street, Cincinnati, Ohio.

EDITORS.

DR. A. D. LORD, *Superintendent of Public Instruction,
Columbus, Ohio.*
H. H. BARNEY, *Principal of Cincinnati Central High
School.*

C. KNOWLTON, A. B., *of Cincinnati Central High School.*

TERMS:

One Copy, for one year, - - - \$0.50
Five copies, to one postoffice, one year, - 2.00
Ten copies, Do. Do. - - - 3.00

Payable in all cases, strictly in advance.

PREMIUMS TO SUBSCRIBERS.

For one dollar we will send two copies of the SCHOOL FRIEND AND OHIO SCHOOL JOURNAL for one year, and one back volume of the Ohio School Journal; or, we will send one copy of the SCHOOL FRIEND AND OHIO SCHOOL JOURNAL, and back volumes I, II, and III of the Ohio School Journal.

For two dollars and twenty cents we will send four copies of the SCHOOL FRIEND AND OHIO SCHOOL JOURNAL for one year, and volumes I, II, III, and IV, of the Ohio School Journal.

All letters relating to this paper, should be directed post paid to the "SCHOOL FRIEND, CINCINNATI, OHIO."

CONTENTS.

EDITORIAL—	PAGE
Hints and Suggestions, - - -	152
Tribute of Respect, - - -	152
Industrial Congress, - - -	152
Book Notice, - - -	152
Geometrical Questions, - - -	152
Items, - - -	153
MATHEMATICAL DEPARTMENT, - - -	155
METEOROLOGICAL TABLE, - - -	158
COMMUNICATIONS—	
Letter from J. Hurty, - - -	154
Education and Common Schools, by J. E. B., - - -	154
Mental Arithmetic, by ANDREW FREESE, - - -	154
POETRY—	
Bob Fletcher, - - -	145
The Bird Song, - - -	148
Song of Labor, - - -	150
MISCELLANEOUS—	
Saturn's Ring, - - -	145
Robert Houdin, the Necromancer, - - -	146
How it's Done at the Astor, - - -	147
Bad Effects of Miscellaneous Reading, - - -	148
The Family opposed to Newspapers, - - -	148
Letter from Havana, - - -	148
Wife, Mistress, Lady, - - -	148
Concert Thinking, - - -	149
The Horse Jockey's Confession, - - -	149
Scientific, - - -	150
Good Breeding, - - -	150
The Rotation of the Earth made Visible, - - -	150
Ventriloquism—a Fact, - - -	151
The Small, Sweet Courtesies of Life, - - -	155
The Legal Profession, - - -	155
The Effect of Tides, - - -	156
Pursuit of Knowledge under Difficulties, - - -	156
Science Important to Mechanics, - - -	157
Use of Text Books in Schools, - - -	157
The Wife of Gen. Jackson, - - -	157
Curious Things in the Crystal Palace, - - -	157
How Abuses have their Origin, - - -	158
The Rich Man's Wages, - - -	158
SCRAPS, - - -	146, 158 159

Bob Fletcher.

I once knew a plowman, Bob Fletcher his name,
Who was old and was ugly, and so was his dame;
Yet they lived quite contented, and free from all strife,
Bob Fletcher the plowman, and Judy his wife.

As the morn streaked the east, and the night fled away,
They would rise up for labor, refreshed for the day;
And the song of the lark as it rose on the gale,
Round Bob at the plow, and his wife at the pail.

A neat little cottage in front of a grove,
Where in youth they first gave their young hearts up
to love,
Was the solace of age, and to them doubly dear,
As it called up the past with a smile or a tear.

Each tree had its thought, and the vow could impart
That mingled in youth the warm wish of the heart;
The thorn was still there, and the blossoms it bore,
And the song from its top seemed the same as before.

When the curtain of night over Nature was spread,
And Bob had returned from the plow to his shed,
Like the dove on her nest, he reposes from all care,
If his wife and his youngsters contented were there.

I have passed by his door when the evening was gray,
And the hill and the landscape were fading away,
And have heard from the cottage, with grateful sur-
prise,
The voice of thanksgiving like incense arise.

And I thought on the proud, who would look down
with scorn,
On the neat little cottage, the grove and the thorn,
And felt that the riches and tinsels of life,
Were dross, to contentment with Bob and his wife.

Saturn's Rings.

The Saturnian system, as it is called, consist-
ing of the planet, his rings and eight moons, is
the most magnificent object presented to the im-
proved telescopes of the present day. So imper-
fect were the means of observation in the early
history of astronomy that Saturn had made 190
revolutions after the date originally assigned to
the creation before his splendid appendages were
discerned by man; and when Galileo directed
his telescope to the planet, the powers of his in-
strument (which hardly surpassed those of a spy
glass of the present day) were inadequate to the
task of revealing the true nature of the sys-
tem. With each successive improvement of
the telescope, new discoveries have been made,
until we now have the planet surrounded with
rings and eight moons. Sir Wm. Herschel's
large telescope revealed to him the fact that the
ring was double, their parts having no mutual
contact or connection, and he was enabled to see
stars through the opening. Still more recent
observations have convinced astronomers that
the ring is not only double, but sometimes at
least quintuple; and seven or more rings have
been seen. Sir Wm. Herschel supposed that
he proved the revolution of the rings around
their center, completing a revolution in the

same time that satellites would require for a
revolution, at the same distance—in 10½ hours.
Very delicate micrometrical measurements have
demonstrated that the rings are not exactly con-
centric with the planet, but that their center of
gravity oscillates about that of the planet in a
minute orbit. The dimensions of this system of
rings, and planets are as follows:

Diameter of the exterior ring	176,418 miles,
Interval between the rings	1,791 "
Breadth of the exterior ring	10,573 "
Diameter of the interior ring	151,690 "
Breadth " "	17,175 "
Interval between the planet and inner ring	19,090 "
Diameter of the planet	79,160 "

The thickness of the ring is too small to be
measured; it is estimated at 100 miles. The
ring has been supposed to be a solid opaque body
because it casts a shadow upon the planet and
receives one from it. The question has been
raised how so stupendous an arch of solid, pon-
derous materials can sustain a load as great as the
planet, and the answer has been, swift rotation of the
ring, the centrifugal force keeps it in its place,
just as a moon or series of moons in the same
position would be sustained. Had the center of
gravity of the rings coincided with that of the
planet, they would have been in unstable equilib-
rium so that the slightest extraneous attraction,
would have precipitated them upon the planet.
Such attraction would doubtless be exerted by
the satellites, and in order to endow the system
with a maintaining power, it has been shown to
be sufficient to load the rings with inequalities in
some parts of their circumference, or with greater
density in some parts than others. "But" says
Sir John Herschel "even without supposing the
existence of any such load—of which, after all,
we have no proof—and granting in the fullest ex-
tent the general instability of the equilibrium, we
think we perceive in the rapid periodicity of all
the causes of disturbance, a sufficient guarantee
of its preservation. However homely be the
illustration, we can conceive nothing more apt in
every way, to give a general conception of this
maintainance of equilibrium under a constant
tendency to subversion, than the mode in which
a practiced hand will sustain a long pole in a
perpendicular position, resting on the finger, by
a continual and almost imperceptible variation of
the point of support. Be that however as it may,
the observed oscillation of the centers of the rings
about that of the planet is in itself the evidence
of a perpetual contest between conservative and
destructive powers—both extremely feeble, but

so antagonizing one another as to prevent the latter from ever acquiring an uncontrollable ascendancy, and rushing to a catastrophe. Careful observation with the powerful refracting telescope at Cambridge, Mass., and with Lord Rosse's great reflector fail to show any such inequalities as have been conjectured to exist in the rings. This, together with the fact that the number of rings appears to vary, has led Mr. Bond, the observer at the Cambridge Observatory, to the conclusion that the rings are fluid, probably water or a liquid one-fourth denser. This hypothesis Mr. Bond communicated to the American Academy in Boston at its session in April. Prof. Peirce at the late meeting of the Scientific Association, read a paper in which he designed to show that this must be the case—that the rings are huge currents of a liquid like water coursing around the planet in streams that vary at times from 2 to 20 in number. Their density varying from that of water to one-fourth greater, while that of the planet itself is one-eighth the density of water—light as cork. The rings he contends, are sustained by the satellites, and the satellites of course by their primary Saturn. This startling, bold hypothesis was ingeniously sustained by Prof. Peirce, but will be subjected to rigid scrutiny before it is generally adopted. In answer to a question why Uranus was not supplied with rings, Prof. Peirce replied that the satellites of Uranus might be sufficiently numerous but not rightly adjusted for the purpose. He intimated that a ring about the sun, lying between the orbits of Mars and Jupiter may formerly have existed, and asteroids and comets may possibly have originated from it. In closing his remarks Prof. Peirce alluded to a communication which he had laid before the Association at a former session in which he attempted to show the fallacy of the Nebular hypothesis of the universe—that it rested upon three legs, of which one was too long, another too short, and the third had been demolished. By this hypothesis, said he, a weak, vain and wicked philosophy of modern times, has sought to exclude the grand Author of all from his works, in vain; it may, however, yet be shown that this was the method adopted by the great geometer in framing this system.

Prof. Mitchel suggested that the correctness of this hypothesis of Mr. Bond might be tested by observing the effects of refraction of the rings of water, especially when separated into smaller streams, on occulted stars.

Robert Hondin, the Necromancer.

The Paris correspondent of the Republican, relates some of the wonders performed by the celebrated Robert Hondin, probably the most expert necromancer in the world. Some of his tricks are really almost enough to make one believe in sorcery. He is not an ordinary juggler, but what is called here a *physician*, a man who

has cultivated the natural sciences to a great extent, and has made himself nearly perfect in the art of mechanism. He is a pleasing looking man of about forty-five years of age, and comes upon the stage in a plain citizen's dress. His tables are not crowded with a great quantity of tinsel glittering things to make a show, but contain nothing but is necessary for the evening's performance. His son, a lad of sixteen or seventeen years of age, stands near to assist him. The first experiment he showed the evening I was present, was what he called the magnetic clock. A large, round, flat glass plate, as clear as crystal, and representing the face of a clock, was suspended by two cords to the ceiling. Alongside, but entirely separated from the dial plate, was a glass bell, with a hammer on the outside, and which was likewise suspended from the ceiling. Of course there could be no machinery either in the glass plate or in the bell, as they were perfectly clear, and besides they were handed to the audience for examination. Mr. Hondin commenced his performance by announcing to the audience that the hands of the clock would turn any way that might be desired, would move fast or slow as requested, and would stop at any figure designated, and as to the glass bell, its hammer would strike any number asked for, would strike fast or slow, and stop instantly if commanded. All this was done. Hondin never went near either of them. Different persons in the hall commanded the hands to turn to the right and to the left, to go fast and slow, and stop at any figure. As to the glass bell it performed wonderfully. One of the gentlemen of the party, and who sat next to me, even took it in his hand entirely detached from cord, wire, or anything, commanded it to strike twelve very slowly. It immediately began as slow as possible, but the gentleman soon told it to go fast, it did so; faster yet; as fast as possible; it went so fast we could hardly count. At twelve, he ordered it to go on, and when it reached eighteen, he suddenly ordered it to stop, which it did instantly. You may judge how completely mystified every one was.

The next most wonderful trick was pouring from the same bottle any kind of wine or liquor demanded, and as much as wanted. The bottle he held was a common quart bottle. He went among the audience, while his son followed with a large waiter, containing, I suppose, nearly a hundred wine glasses. Brandy, rum, sherry, maderia, claret, port, and a dozen other kinds of liquor, were demanded by the eager audience, and Hondin poured just as fast as he could, and every one pronounced the liquor to be just what they asked for. I took a glass and asked for port, while the gentleman next to me at the same moment asked for rum. The dark red port was poured into my glass, while the colorless rum was instantly after poured into my friend's glass. He must have poured more than a hundred

glasses, for a great many persons asked for more. I confess that when I witnessed this, and saw the bottle had no sort of communication with anything, and that Hondin did not even turn his hand, I could not avoid a slight suspicion of diablerie.

After this he brought in a large flat portfolio, such as are used in the paint shops to put engravings in. It was about three feet long, two broad and an inch thick. He took out of this successively three or four bonnets of the latest fashion, a large cage containing two canaries, two immense copper saucepans full of beans, another, equally large, full of blazing brandy, and a fourth larger than the others, full of water. I leave your readers to answer the question as to how all these things could be contained in a portfolio.

He did a dozen other interesting and wonderful tricks, and then commenced his truly astonishing experiments with his son in clairvoyance.

The boy was not put to sleep at all—neither did his father make any sort of passes over him, his eyes were simply bandaged with a large silk handkerchief, and his back turned to the audience. His father then went among the audience, and would take in his hand anything offered to him, hold it up where he was, but without speaking a word, and the boy would instantly name the object. Remember that his back was turned all the time, and that neither his father nor any one else went near him at all. The boy never hesitated and never missed. At one time his father took a seal from a Turkish gentleman present. The boy described the setting and the stamp, but he said he could not read the letters as he had never seen such letters before. Hondin then gave him a slate and pencil and gave one also to the gentleman who sat next to me, requesting him to trace any figures, to any amount on the slate. The gentleman wrote 5 9 8 7 8, and the boy at the same time traced the same on the slate. This was repeatedly tried to the most utter mystification of every one present. The boy wrote as fast as the others did, and never failed to display the correct figures. All Paris has gone to see these most wonderful experiments in clairvoyance, and even the members of the Institute and scientific men, have come away declaring their inability to understand it. The boy was certainly not asleep, and yet, with his eyes banded and his back turned and separated at least ten yards from his father, he describes anything that the latter takes in his hand. Hondin declares, even in private, that it is a peculiar gift his son has, and really we do not see how it can be explained in any other way.

☞ The papers are bragging of an invention by which leather is tanned in ten minutes. We have seen the human hide, however, tanned in five. Our schoolmaster used to do it occasionally in two.—*Exchange Paper.*

Bobolink and Canaries.

GREAT BARRINGTON, March 13, 1851.

MESSRS. EDITORS: A curious circumstance, quite aside from the ordinary dictates of instinct, occurred in the case of a young bobolink in the family of Rev. J. W. Turner, of Great Barrington, Mass. He was caged at first apart from a pair of canaries, which were in another cage in the same room. The bobolink never sang at all from June to December, until he was permitted to share in the same cage the civilities and sympathies of his neighbors, the canaries, who had been so long entertaining him with their sweet and unwearying strains. When admitted to the same cage with them, he tried most assiduously to learn their song. At first, however, for a long time, with miserable success enough. He would stand and watch them with an agony of attention, and then try to imitate their notes. He would swell out his throat, and stretch up his neck as they did, and then with a violent effort, try to sound one note, which, in spite of all his zeal and labor, proved to be a mere rough scream. At this humiliating failure, he would be so provoked and enraged that he would fly at his inoffensive and well-meaning mates and teachers, and peck them most unmercifully, and drive them from their perch. So he did for three or four weeks, before any apparent progress was made in his studies. But his perseverance was equal to the difficulties he had to overcome. At length he could sound one note well, and one only. And so he continued for some six weeks longer; learning one note at a time, till he had finally completed the whole canary song, and could sing it to perfection. Then he would sing with them in perfect harmony and perfect time, always closing at the exact note with them.

It is also a little singular that, although through all this training, he was never known to begin to make a sound, till the canaries had first struck the key-note, yet, after he had acquired the skill to sing their song, he must always himself now give the signal by a significant *cluck*; when, instantly, the canaries, generously forgetting or forgiving his former incivilities, would strike in with him, and perform the piece with the greatest perfection, and with the highest delight to themselves and the listening family, who enjoyed this singular concert through the early part of every day for the whole summer.

It is also worthy of remark, that this successful essayist in foreign music, was never known to utter a note in his native tongue, till he had mastered the canary. Then, after a few weeks, when he found himself something of an independent singer, and capable, as he thought, of leading the choir, he at last ventured to go without the chorus, and attempt his own native melody. In his first attempts at the solo, it was most diverting to hear him in confused notes—part in his native bobolink, and part in canary—till at length he was able to expel all foreign ele-

ments from his style, and sing only the pure bobolink.

Having now succeeded in this, he proposed to the canaries to try the chorus again, and gave the "*cluck*," when the canaries, instant to the sign, started off singing their own native song. But not so the bobolink—he threw himself on his "reserved rights," and sung bobolink and so they have continued to the present time, he singing bobolink, and they canary. And as he is the chorister, they begin when he does, and end when he ends, precisely at the same instant.

When this bobolink was first caught, his colors were a bright, beautiful black and white. After molting, he for some reason not stated, never resumed his original spring dress, but has continued the plain brown, like the female, now for two years; and sings in the winter as well as in the summer, especially when the sun shines brightly, and the winds whistle in the trees around the dwelling; and now, since his character is matured, he is a sprightly, happy, gentlemanly sort of a bird.—*Cor. of Traveler.*

How it's done at the Astor.

A LIQUORARY SKETCH.

BY FALCONBRIDGE.

A small party of country merchants, traders, etc., were cruising around New York one evening, seeing the lions, and their cicerone—by the way, "a native" who knew what was what—took them up Broadway, and as they passed the Astor House, says one of the strangers:

"Smith, what's this thunderin' big house?"

"Oh, ah, yes, this," says the cicerone, Smith, "this boys, is a great tavern—fine place to get a drink."

"Well, by hoky, let's all go in."

In they all went, taking a private room or small side parlor, the country gents requested Smith to do the talking, and order in the liquor. Smith called for a bill of fare, upon which are "invoiced" more "sorts," and harder named wines and liquors, than could be committed to memory in a week.

"That's it," says Smith, marking a bill of fare, and handing it to a servant, "that's it, two bottles, bring 'em in."

Up came the wine; it was of course, elegant. The country gents froze to it—they had never tasted such stuff before in all their born days!

"Look-a-here, mister, says one of the business men, "got any more of that wine?"

"Oh, yes, sir," says the servant.

"Well, fetch it in."

"Two bottles, sir?"

"Two ganders! No, bring in six bottles! I can go two on 'em myself," says the country gent.

The servant delivered his message at the bar, and after a few grimaces and whispering, the servant and one of the bar-keepers, or clerks, carried up the wine. Says the clerk, whispering to Smith, whom he slightly knew:

"Smith, do you know the price of this wine?"

"Certainly I do," says Smith, "here it is invoiced on the catalogue, ain't it?"

"Oh, very well," says the clerk, about to withdraw.

"Hold on!" says one of the merry country gents, "don't shake your handsome countenance off so quick, do yer want us to fork rite up for these drinks?" hauling out his wallet.

"No, yer don't," says another, hauling out his change.

"My treat, if you please, boys," says the third, pulling out a handful of small change, "I asked the party in, an' I pay for what liker wa drink—by thunder."

In the midst of their enthusiasm, the clerk observed that it was of no importance just then—the bill would be presented when they got through. This was satisfactory, and the party went on, finishing their wine, smoking, etc.

"'Spose we have some first rate champagne boys?" says one of the gents, beginning to feel his oats some.

"Agreed," says the rest. Two bottles of the best "*sham*" in the 'tavern' were called for, and which the party drank with very great gusto.

"Now," says of one them, "lets go to the theater, or some place where there's a show going on. Here, you, mister, (to the servant,) go fetch the landlord."

"The landlord, sir?" says Pat, the servant, in some doubt as to the meaning of the phrase.

"Ay, landlord, or that chap that was in here just now, tell him to fetch in the bill. Ah, here you are, old fellow; what's the damage?" asks the gent, so ambitious in putting the party through, and hauling out a handful of keys, silver and coppers, to do it with.

"Eight bottles of that old flim-flam-di-rip-rap," pronouncing one of those fancy gamboge titles found upon an Astor house catalogue, "ninety-six dollars—"

"What!" gasped the country chap, gathering up his small change that he had begun to sort out on the table.

"And two bottles of "Schneider" and cigars—seven dollars," coolly continued the bar clerk;

"A hundred and three thunder and—"

"A HUNDRED AND THREE DOLLARS!" cried the country gents, in one breath, all starting to their feet, and putting on their hats.

The clerk explained it, clear as mud; the trio "spudged up" the amount, looking very sober and walked out.

"Come boys," said Smith, "let's go to the theater.

"Guess not," says the boys, "b'lieve we'll go home, for to-night, Mr. Smith." And they made for their lodgings.

If these country gents were asked, when they got home, any particulars about "the elephant," they'd probably hint something about getting a glimpse of him at the Astor House.

The Bird Song.

SUNG BY MARY LIND.

"BIRDING! why sing in the forests wide?
 Say why? Say why?
 Call'st thou the bridegroom or the bride?
 And why? And why?"

"I call no bridegroom—call no bride,
 Although I sing in the forests wide,
 Nor know I why I'm singing."

"BIRDING! why is thy heart so blest?
 Oh, say? Oh, say?
 Music o'erflowing from thy breast?
 Oh, say? Oh, say?"

"My heart is full, and yet is light,
 My heart is glad in day or night,
 Nor know I why I'm singing."

"BIRDING! why sing you all the day?
 Oh, tell? Oh, tell?
 Do any listen to thy lay?
 Oh, tell? Oh, tell?"

"I care not what my song may be—
 Now this, now that—I warble free—
 Nor know, yet must be singing."

Bad Effects of Miscellaneous Reading.

Of two young men of equal capacity, suppose that one occupies himself for a certain period in light reading of a miscellaneous character, and the other devotes the same time to the vigorous study of one or two works requiring close attention and continuous thought, such as Butler's Analogy, Smith's Wealth of Nations, Locke's Essay on the Human Understanding, or Mill's Logic, the amount of intellectual benefit derived by the two will be greatly in favor of the latter. The former will have gained merely a crowd of heterogeneous impressions, lying in confused masses in his memory, like the shreds and patches of a rag-bag, while the other will have been through an athletic course of mental discipline, by which every faculty is invigorated. "Beware of the man of one book," says a Latin proverb. He knows no more than that, but that he knows thoroughly. Let me commend to every young man who hears me to form the habit of reading with a definite object, and with a concentrated attention, and not to roam over a library as one strolls through a garden, pitching upon books because there is something taking in their titles, or because you are content to be entirely ignorant of some things in order that you may know other things well. It is better to know every thing of some thing, than some thing of every thing. Study, says Cicero—and no one ever had a better right to define study than he, for no man ever studied harder—is the intense and assiduous occupation of the mind, applied to some subject with earnest good will. One hour of study is worth a day of listless dawdling over a shelf of books.—*Hillard's Address before the Mercantile Library.*

Wife--Mistress--Lady!

Translated from the German for the N. York Mirror.

Who marries for love takes a wife; who for the sake of convenience takes a mistress; who marries for consideration takes a lady. You are

loved by your wife, regarded by your mistress, tolerated by your lady. You have a wife for yourself, a mistress for your home and its friends, a lady for the world. Your wife will agree with you, your mistress will accommodate you, your lady will manage you. Your wife will take care of your household, your mistress of your house, your lady of appearances. If you are sick, your wife will nurse you, your mistress will visit you, and your lady will inquire after your health. You take a walk with your wife, a ride with your mistress, and join parties with your lady. Your wife will share your grief, your mistress your money, and your lady your debts. If you are dead your wife will shed tears, your mistress lament, and your lady wear mourning. A year after your death marries your wife, in six months your mistress, and in six weeks or sooner, when mourning is over, your lady.

The Family Opposed to Newspapers.

The man that don't take his county paper was in town yesterday. He brought his family in a two-horse wagon. He still believed Gen. Taylor was President, and wanted to know if the "Kamschatkians" had taken Cuba, and if so where they had taken it. He had sold his corn for 25 cents—(the price being 31)—but upon going to deposit the money they told him it was mostly counterfeit. The only hard money he had was some three cent pieces, and those some sharper had "run on him" for half dimes! His old lady smoked a "cob pipe" and would not believe that anything else could be used. One of the boys went to a blacksmith's shop to be measured for a pair of shoes, and another mistook the market house for a church. After hanging his hat on a meat hook, he piously took a seat on a butcher's stall, and listened to an auctioneer, whom he took to be the preacher. He left before "meetin was out," and had no great opinion of the "sarmint"

One of the girls took a lot of "seed onions" to the Post Office to trade them for a letter. She had a baby which she carried in a "sugar trough" stopping at times to rock it on the sidewalk. When it cried, she stuffed its mouth with an old sock, and sang "Barbara Allen." The oldest boy had two "coon skins," and was on a "bust."

When last seen, he had called for a glass of "soda and water," and stood soaking ginger bread and making wry faces. The shop-keeper mistaking his meaning, had given him a mixture of sal-soda and water, and it tasted strongly of soap. But "he'd hearn tell of sody and water, and was bound to give it a fair trial, puke or no puke." Some "town fellow" came in and called for lemonade with a "fly in it," whereupon our "soaped" friend turned his back and quietly wiped several flies into his drink.

We approached the old gentlemen, and tried to get him to "subscribe," but he would not listen to it. He was opposed to "internal improve-

ments," and he thought "larnin'" was a werry wicked invention, and cultivated nothing but vanity and vexation." None of his family ever learned to read, but one boy, and he "tached school awhile, and then went to studying wirginity."

Letter from Havana.

The following are some of the impressions of a very young lady from Boston, who stopped a few days in Havana, on her way to California. She writes in a free, broken style to her mother, but, as her letter indicates, she evidently observes well. We have another letter describing her trip from Chagres to Panama, which is truly laughable, and characteristic of the light-hearted girl, even among fatigues and dangers that often make men quail. Speaking of Havana, she says:

We arrived there the last day of January, about 10 P. M., but as no vessel is permitted to enter the harbor after five P. M., we were obliged to lie outside till the following morning. The first object of interest that meets the gaze upon the approach to the city, is the Moro Castle; it is a very strong fortification, and stands at the entrance of the harbor. There is another fort upon the opposite side of the bay, there being four in all. They are well prepared for an enemy, for every house is almost a fort. We were all obliged to obtain passports before we could land. Immediately upon our arrival at the wharf, hosts of little covered sail boats came over to convey those who wished to the opposite shore, which is the most beautiful part of Havana. Two Mexicans sailed us across in a beautiful little boat, all nicely provided, trimmed and cushioned. They are very dark, and have the features of our North American Indians. Spanish is spoken altogether by the natives, all the English they know being the value of money, and almost invariably they charge more for their services than they bargain for. We make them know our wants by signs, and they have caught a little English. We went to an American hotel, and dined upon *gumbo soup*, any quantity of animal food, green peas, tomatoes, cucumbers, lettuce and asparagus. For desert we had some of the sweetest oranges that ever grew, bananas, guava jelly, beside various other things that I did not know the name of, ending with claret wine and coffee. Such delicacies at our mid-winter, were of course quite new to me. It is very warm here now. The residences are quite unlike ours; they do not exceed two stories in height. The floors are built of stone or marble; their rooms are large and airy, and the windows reach from the ceiling to the floor. They are all barred with iron. We see pretty Spanish ladies peeping out sometimes; they almost all dress in white, and are never seen with bonnets on. Upon entering the house we first enter a sort of court yard, where they keep their horse

and carriage; back and above are their rooms; a very singular taste they have of giving their animals the front of the house. There are one hundred Africans to one white; almost every negress we meet, has a cigar between her pretty lips. Many of them dress in white, which sets off their complexion to good advantage. The Spanish ladies seldom go out till sundown, then they dress and ride out in their volantes, a curious looking carriage. The top is something like our chaise with large wheels and long shafts, the animal being about his length from the vehicle; the driver sits upon his back, and some of them dress in livery. Then there is a sort of curtain to protect them from the sun. The horses are very small, what few they have, but there are any number of mules. We visited the soldier's parade ground, and saw some six or seven hundred lancers, all mounted. They are constantly on drill; their uniform is white, with red epaulets, and a little flag. We afterward rode outside the walls, and it is almost an Eden. I never was in so beautiful a place before; there are beautiful fountains, and the most beautiful flowers that I ever beheld; the cactus growing wild. There was one avenue leading from the city about a mile in length, and on each side of the way was a beautiful hedgerow of roses. There are no fences, only borders of flowers by the road side. Then we passed through beautiful groves of high trees, all in bloom, with a most fragrant atmosphere. Here we saw coconut growing. They grow very high, and branch out only at the top, the trunks being of very singular appearance. Orange trees, too, in great abundance, and bananas and pineapples. We visited the Governor's palace; here, too, is everything that is beautiful. There were several soldiers belonging to his guard. After we were seated in our carriage, one of them, a handsome Spanish soldier, stepped up and presented me with a beautiful bouquet of roses. I acknowledged the compliment with all the grace I was mistress of, by pressing it to my heart, and throwing him a kiss, knowing that he could not understand my English. Nearly every person we meet is a soldier. Two other ladies and myself took a stroll on shore yesterday. As we passed the sentinel he bowed, and we passed on. We attracted their attention quite as much as they ours. A beautiful little boy came out and met us, and invited us by signs to walk in. He stooped to a sitting posture to make us understand his wishes. Three pretty ladies stood in the door and brought chairs, but we declined, and returned home.

Concert Thinking.

ALL teachers have noticed a tendency, in all except the individual reciting, to relax the attention. To secure unremitting attention, especially in a large class, is a very difficult task. Yet the completely successful teacher must do it. All

minds must be on the subject before the class, and work in unison. I term this *concert thinking*. I will venture to suggest a single method of securing this, which seems to me far better than the concert recitation. A class in Colburn's First Lesson is before you. Read a question before naming the pupil who is to solve it. A majority of the class will listen and begin their calculations. This is well. You name the operator. That name relieves half the class. They breathe freely again, and their slightly disturbed minds fall into a state of agreeable quiescence, till another question is read, which may fall to them. Very few pupils will follow the successive steps of a demonstration made by another member of the class. In classes well trained a part may do it. Is there any remedy for this relaxation of attention, and wandering of thought?

The following method has been tried with uniform success. While the first pupil is proceeding in his demonstration, pronounce another name, and let the second continue the process, commencing where the first was interrupted. Before the work is completed, a third name may be called from another part of the class, and so on to any extent. This may be called *forcing* the attention, still it secures the object by keeping all minds wakeful and working.

This need not be done with every question, but often enough to make each pupil, and especially the heedless pupil, feel that he must hold himself in readiness to take the work in any stage of its progress. It is doubtless better, generally, that a single scholar follow the chain of solution, link by link, from beginning to end; but I am satisfied that the advantages of frequent division of the process will far outweigh the loss.

A similar course may be pursued in practical arithmetic, and in many other branches.—*Mass Teacher.*

The Horse-Jockey's Confession.

The man of the "Yankee Blade" will certainly have to be tied up. The way in which he manages to point an excellent moral from the following rather "strong" tale, is worthy of the most profound metaphysician. The story may have already gone the round: we do not remember it, if it has. Anyhow, there is no harm in setting the ball in motion again.—*Ex. paper.*

A noted horse-jockey, in Connecticut, who had, by his profound knowledge of horseology, and the various arts "adjacent thereto," accumulated a considerable property, was a great hypochondriac, and exaggerated every slight disorder that attacked him into a dangerous disease. Some of his neighbors were uncharitable enough to say that his conscience made him tremble at the slightest menace of death. It is certain, that whenever he was laid upon his bed with sickness, he began straightway to talk aloud of his approaching dissolution, and bored his friends and neighbors with querulous complaints. Once, when sick, an old confederate who had traveled with him, and aided him in despoiling the Egyp-

tians in every part of the State, called to see him. This friend comprehended the nature of his complaint, at once; and requested the family to allow him to manage matters in his own way for a day or two. He changed the tactics which others had previously employed, and, instead of prophesying smooth things, he out-Heroded Herod in croaking over his friend's maladies, and soon pronounced him a dying man. From time to time he dropped in, and so worked upon his feelings, that he soon brought the disease to a crisis.

He called upon him the second day, about noon, and taking his sick friend's wrist between his fingers, he shook his head mournfully, and with a gasp he said, "Poor fellow, it will soon be over."

"This is hard, Sam," said the sick professor of horseology, and he groaned, in bitterness of spirit.

"Hard enough," said Sam. "Just as you have got this nice farm all paid for. Your boys will raise the devil with it when you are gone."

"Oh—oh."

"What is the matter?"

"Oh! such a pain shot through me."

"Hain't you got any thing on your mind that you want to say—pretty soon? The last horse you sold for a colt, was as old as a man, you know."

"Oh, no, Sam. I've nothing to say: that is, I've got so much to say, that it is of no use to try, Sam."

"What?"

"Can't you—can't you pray for me?"

"Well, it's something that ought to be done; and I think I'll try."

Sam knelt down, and the sick one covered his head with the blanket, and fairly writhed in agony of soul. Sam began, keeping one corner of an eye upon the bed:

"Oh Lord, thy servant's now lying sick on the bed, having burnt out the candle of life in he service of the devil, [groan from the blanket,] is now desirous of throwing the snuff in his Maker's face, [sick one peeps out.] He lies here a broken down nag; spavined, ring-boned, and heavy: and Thou knowest that he has raised the hardest colts in this neighborhood. [Blanket jerked down convulsively.] Thou knowest, Lord, that he has been one of the greatest liars, [lightened color in the sick man's face,] and cheats, [fists doubled up under the blanket,] and most rascally horse-jockeys that ever trotted over Thy footstool."

"It's an infernal lie, you scoundrel!" said the reviving patient, and he leaped from the bed. "You cheated me twice, yourself, you hypocrite," roared the furious invalid; and he fairly turned his friend out of doors.

The horse-jockey was abroad the next day, and soon commenced sending his boys to school, and reforming his own manner of life. He was changed from the very hour that the prayer was made at his bed-side, and lived and died a better man.

Song of Labor.

I love the plowman's whistle,
The reaper's cheerful song,
The drover's oft repeated shout,
As he spurs his stock along;
The bustle of the market man
As he hies them through the town;
The halloo from the tree-top
As the ripened fruit comes down;
The busy sound of the thrashers,
As they clean the ripened grain,
And the husker's joke and mirth and glee,
'Neath the moonlight, on the plain.
The kind voice of the drayman,
The shepherd's gentle call—
These sounds of active industry,
Oh! there is a good in labor,
If we labor but aright,
That gives vigor to the day-time
And a sweeter sleep at night;
A good that bringeth pleasure,
Even to the toiling hours—
For duty cheers the spirit,
As the dew revives the flowers.

A New Post-office.

Every body who reads the papers, is aware that one of the spiciest is the Boston Post. Col. Greene, the editor, is a great joker, but one morning, last week, he was a jokee, as we will endeavor to show. A tall Vermonter stepped into the Colonel's office, and inquired if there "was any letters for him in the office?"

The Colonel, who was hard at work upon an anti-coalition "leader," replied in the negative.

"Wa-al, this is the Post-office, aint it?"

"This is the office of the Post," said the Colonel, very blandly.

"Ye-as, jest so. Wa-al I didn't know but my old woman had rit down about the gownd I talked of gettin for her. You see I cum from up towards Vermont, with a lot of brumes, and axe-helves, and sich like horticultural fixins, to see if I could n't dicker a little mite in Bosting. And—"

"You will find no letters here," said the Colonel, interrupting the Yankee in the full flow of his narrative. This is the office of the *Boston Morning Post*."

"*Sho!* wa-al I see 'Morning Post' on the sign, cum ter think, and I might have knowed that yew didn't deliver letters in the arternoon, but you see I did 'nt expect nun this mornin', for Zekel Peabody started from hum ten days arter I cum, and he told me that Keziah was goin' to write a letter to me to get her a yaller sammon cullered delane, and I dunno how many yards to git, no more 'n a hen with her head cut off. But I'll drap in to-morrow mornin', about daylight, and maybe there'll be a letter. I sold my necessities almost out, to-day, and I dunno but I shall trade a little mite in horse-flesh. I've got a colt here that's about as equil as any thing that ever wore huffa. *He'll* leave about as large a tract of country behind him, in the course of a day, as any other animal. He's been kep in the

stable several weeks: When I started from hum, and set the blood to suekulatin in him all of a suddent, it gin him a *leetle* tech of the blind staggers; but I jumpt out of the waggin, and stuck my jack-knife into the ruff of his mouth, jest in the third wrinkle, and set blood a runnin'. That relieved his systim, and he goes like a bird. Wa-al I'll drap in to-morrow mornin' and see: there aint no evenin' or arternoon post-office in the city, I spouse?—I sa-ay, yew *haint* got a nag you'd like ter trade, hev you? Ef yew git my colt yew can lay 'em all out on the neck. Do n't yew—"

"Confound the fellow!" said Colonel Greene, who had been trying to write all this time. "Sir, this is not the post-office for the delivery of letters, but the publication office of the Boston Morning Post: a newspaper, sir, is published here. Do you understand it, now, my friend? I am not a man of *letters*, but of *types*. Ha! ha!"

"*Sho-o-o!* Yew do n't say so! Wall, I do n't keer a durn whether I get a letter any how, for if I do n't, I sha n't have to buy no gownd!"

The Vermonter sauntered out, and the Colonel resumed his pen; but he remembered the Vermonter, when, on the following day, the Evening Journal commenced its leader with the following words:—"The Post, of this morning, contains a long and *rambling* article on the senatorial question—coalition, etc."—*Yankee Blade*.

COMPOUND INTEREST.—The following simple rule will show the number of years in which a single sum will become double in amount, by the accumulation of compound interest, for all rates of interest not exceeding ten per cent. Divide 70 by the rate of interest per cent., and the quotient is the number of years required. Thus 70, divided by 10, will give 7 years; by 5, 14 years; by 4, nearly 18 years; by 3, nearly 24 years; by 2, 35 years.

THE FIRST FREE SCHOOLS.—It is said that the Waldenses were the first people in Europe who established free schools for all the people. For ages before the Scotch Parliament made enactments on this subject, in 1494, "the Waldenses had taken care that all the children—including those of the poorest goatherds—should have access to some school free of expense. Their teachers were their pastors, the two professions, at that time, being hardly separable. Bernard, of the 12th century, thus speaks of them:

"The rustics and laymen in these valleys are taught to argue with and confute their betters upon subjects that they have no business to meddle with; for they have schools everywhere, in which the meanest of the people are allowed to attend."

It is bad to make an unnecessary display of high principles, but it is worse to have no high principles to display.

Good Breeding.

THE following anecdote is related by Mr Walker, in his amusing and instructive publication, "The Original," as affording a fine instance of the value of good breeding, or politeness, even in circumstances where it could not be expected to produce any personal advantage:—

"An Englishman making the grand tour towards the middle of the last century, when travellers were more objects of attention than at present, on arriving at Turin, sauntered out to see the place. He happened to meet a regiment of infantry returning from the parade, and taking a position to see it pass, a young captain evidently desirous to make display before the stranger, in which the city is intersected, missed his footing, and in trying to save himself, lost his hat. The exhibition was truly unfortunate; the spectators laughed, and looked at the Englishman, expecting him to laugh too. On the contrary, he not only retained his composure, but promptly advanced to where the hat had rolled, and taking it up, presented it with an air of unaffected kindness to its owner. The officer received it with a blush of surprise and gratitude, and rejoined his company. There was a murmur of surprise, and the stranger passed on. Though the scene of a moment, and without a word spoken, it touched every heart—not with admiration for a mere display of politeness, but with a warmer feeling for a proof of that true charity 'which never faileth.' On the regiment being dismissed, the captain, who was a young man of consideration, in glowing terms related the circumstance to his colonel. The colonel immediately mentioned it to the general in command; and when the Englishman returned to his hotel, he found the aid-de-camp waiting to request his company to dinner at head quarters. In the evening he was carried to court—at that time, as Lord Chesterfield tells us, the most brilliant court in Europe, and was received with particular attention. Of course, during his stay at Turin, he was invited everywhere; and on his departure he was loaded with letters of introduction to the different States of Italy. Thus a private gentleman of moderate means, by a graceful impulse of Christian feeling, was enabled to travel through a foreign country, then of the highest interest for its society, as well as for the charms it still possesses, with more real distinction and advantage than can ever be derived from the mere circumstances of birth and fortune, even the most splendid."

The Rotation of the Earth made Visible.

The apparatus for illustrating the new theory of Mons. Foucault, at Bunker Hill Monument, was finished yesterday. In the afternoon, several scientific gentlemen, and others, were present to witness the wonder.

A cone of brass metal is fastened by its base to the floor, at the top of the monument; from the

apex of this cone to near its base, a slit is sawed, into which is inserted the wire of the pendulum, and fastened by a nut—there is no machinery whatever to keep the pendulum in motion. The wire extends to the floor at the base of the monument, being a length of 216 feet; it is a small pianoforte wire, annealed and attached to a brass frame inclosing a cannon ball. From the bottom of this is an iron point reaching to within a small fraction of an inch of the table; this table is circular about seven feet in diameter, and upon the outer graduation, the degrees are marked very distinctly. The plane of oscillation of the pendulum is the same as the diameter of the diagram or table, about seven feet. The pendulum being influenced by gravitation only, of course the friction and atmosphere would naturally cause it to stand still in a vertical position, in a short time. Consequently, it is occasionally set in motion anew—this is done in a delicate manner, by means of a thread fastened to the pendulum, which when it is steadied, is burnt off close to the pendulum.

In the latitude of Boston, it requires thirty-five hours and thirty-six minutes, for a perfect revolution, revolving at the rate of about six minutes to a degree, and ten degrees to an hour. At the equator it becomes infinity, and at the pole it revolves once in twenty-four hours.—*Boston Cour.*

Ventriloquism.—A Fact.

It was on a fine afternoon in autumn, that a large crowd, composed of men, women, and children, were seen advancing through the principal street of Hopefield, a retired village in England. In the midst of them was a black bear, which walked unconcernedly along, conducted by his keeper. The latter wore a drab surtout, large enough to admit two persons of his dimensions within its folds: a waistcoat, much too short, divorced from his pantaloons, which gave evidence of great devotion, as the knees were worn threadbare; boots, which only lacked the soles, and a hat grown gray with time, widowed of its brim. A young boy, with a famished look, marched in front, blowing on a flageolet, and thumbing a tamborine.

Arrived in front of "The Red Lion," the only tavern in the village, the bear-leader stopped, and forming a circle around him, ordered bruin to stand up. After brandishing a stick above the head of the animal, he commenced dancing with him; chasséeing right and left, and throwing himself into the most ludicrous attitudes, which bruin imitated, in a style truly picturesque. It may be conceived that the inhabitants of Hopefield were delighted, and the crowd laughed with good will, and loudly.

A ventriloquist, of joyous mood, who happened to be at "The Red Lion," beheld, from a window, this ludicrous scene. Arrived that morning at Hopefield, he had already formed a just estimate of the ignorance and credulity of its

inhabitants; and the idea occurred to him to amuse himself a little at their expense. He left the window, and joined the crowd of spectators, and, availing himself of a momentary cessation of the shrill flageolet and noisy tamborine, he approached the showman.

"Your bear can doubtless speak?" said he, with a serious air.

The showman looked at him cunningly, shrugged his shoulders, and answered roughly:

"Speak to him yourself, and you'll soon find it out."

This was just the reply the ventriloquist expected. He approached bruin, and assuming a most comical expression, he said to the bear, in a droll tone of voice—

"Allow me to compliment you, Mr. Bruin: you are as graceful as an opera-dancer. What country claims the honor of your birth?"

A voice which seemed to issue from the grisly jaws of the bear, replied:

"The Alps—in Switzerland."

We will not attempt to describe the amazement of the crowd: every one was struck mute with fear and astonishment; but the amazement of the showman would have offered an admirable subject for the pencil of Hogarth, surrounded by all those faces, in which consternation was so strongly depicted. His lack-lustrous eyes seemed starting from their sockets; he stretched wide his toothless mouth, and remained aghast and motionless, as if his feet had taken root where he stood.

The ventriloquist turned towards him, and said:

"Your bear speaks very good English, and has little remains of the Helvetic accent."

Then turning again to bruin, he observed, in a kind tone:

"You look sad; are you not well?"

"The fogs of England have given me the spleen," replied the animal.

Here the affrighted crowd began to move off.

"Is it a long time since you belonged to this master?"

"Quite long enough for me to be tired of him."

"Is he not kind to you, bruin?"

"Oh yes!—as kind as the hammer to the anvil."

"Will you not seek revenge, some day?"

"Assuredly. One of these mornings I will eat him, like a radish, for my breakfast."

At these words, the crowd, whose curiosity had urged them, in spite of their fears, gradually once more to approach, now suddenly fell back on each other, and great was the confusion that ensued. The showman had heard enough, and forcibly drew the chain of the animal, to enforce his control, but the wearied bear growled fearfully.

The ventriloquist, perfectly satisfied by this experiment, turned suddenly about and hurried toward the tavern. This augmented still more


the fears of the spectators, and each one took to his heels, as if the bear was in pursuit of him. The ventriloquist having arrived at the inn, laughed heartily to see the simple villagers flying in every direction, whilst the imperturbable bruin remained seated on his hind legs, seeming to contemplate, with philosophic unconcern, the terrors he had excited.

During the evening, the ventriloquist stood at the door of the tavern, around which many of the inhabitants had gathered. The theme of conversation was, naturally, the adventure of bruin, which was commented upon, and exaggerated, according to the various degrees of the fear of the beholders. The ventriloquist, thinking that the joke had been carried quite far enough, explained how he had played upon their credulity. They listened to him, at first, with curiosity; but when he had finished, the old people shook their heads with an air of incredulity.

"This is good to tell children," murmured an old grandmother, "but people of experience are not to be imposed upon. It is not the first time that animals have been known to speak, as is related in the Bible of Balaam and his Ass. Besides, the almanac already predicted this event, and announced that, about the middle of August, three days earlier or later than this, there would take place something wonderful in the world."

The ventriloquist insisted, and sought to prove what he advanced, but his listeners withdrew with distrust, persuaded that he wished to deceive them.

This proves that when an absurd or dangerous opinion has been uttered publicly, the impression can not be removed, even by the retraction of the person who uttered it.

 M. St. Clair Clarke's last story is repeated as an admirable illustration of the probable result of secession movements. It runs as follows:

"Mamma I won't eat my breakfast," [exit boy, pouting, and returns.]

"My child, won't you eat your breakfast?"

"No, I won't," [exit boy, but returns hungry, and finds that the breakfast is about to be removed.]

"Mamma, why don't you whip me, and make me eat my breakfast?"

THE BEST WAY.—It was the habit of Dr. Arnold, a most honorable and successful English teacher, to treat his scholars as gentlemen and reasonable beings; making them respect themselves by the respect he showed them. Lying to the teachers he made a great moral offense, and always placed implicit confidence in a boy's assertion; then if a falsehood was discovered, it was punished severely. There grew up in consequence, a general feeling that it was a shame to tell him a lie, as he always believed it.

THE SCHOOL FRIEND, AND OHIO SCHOOL JOURNAL.

CINCINNATI, JULY 1, 1851.

Hints and Suggestions.

Blocks, containing the letters in type so large as to be seen very distinctly, or alphabetic cards, will be found a very great convenience in every Primary School. A short time since, we saw a number of dull scholars, who had been drilling on the letters for several weeks, without learning half of them, helped through the whole in a few lessons, by the introduction of some cards, each containing an intelligible or a pleasing picture in connection with its letter. Teachers, how long ought a child to be occupied in learning the alphabet? Have you tried any experiments on this subject, or do you follow the old method which was pursued in your childhood? Have you ever attempted to teach a scholar to read words, without first learning the letters?

To render young scholars familiar with the Roman numerals, (after they have learned the cardinal and ordinal numbers,) let them employ them in *numbering* in their classes. To accomplish the same for older scholars, give them examples, to be solved mentally, using only these numerals, and requiring the results to be announced, and, subsequently, the whole example to be reviewed, and the result of each process expressed in the letters:

Thus, $X+V, \div$ by III, that quotient multiplied by IV, that product \div by X, and that quotient \times by XVIII, equals the square of what number? Ans. VI.

The names of the *periods* as high as the twelfth or thirteenth, should be thoroughly learned by scholars, and they should be able to repeat them, from the highest to the lowest; the order in which they are used in reading large numbers without hesitation. For the purpose of becoming ready in reading large numbers, they should be accustomed to determine at once, without seeing the figures written, the number and the names of the periods employed in reading any number containing from six or seven to forty-five or more figures.

To awaken an interest in the study of geography, teachers should endeavor to communicate some information, or relate some historical incident connected with every country. The great fault in the common mode of teaching this study is, scholars *attempt* to learn too much, and are apt to *remember* nothing. Better have them learn a few important facts in regard to each topic, and fix them indelibly on the mind by frequent reviewing, than attempt more, and fail.

"Not how much, but how well;" "not how much we have professed to learn, but how much we remember;" "not how much we remember, but what we understand;" these are good mottoes in every study. To secure attention to the reading of the Scriptures, in connection with the devotional exercises in school, select passages which can be understood, and which have a bearing upon the daily duties and employments of life, and endeavor, when necessary, to illustrate their application. "Seest thou a man diligent in his business? He shall stand before kings; he shall not stand before mean men." "I have stood before five kings," said Dr. Franklin; and what American does not feel that the place he occupied among the signers of the Declaration, and the Constitution, was far more honorable than any to be found in the courts of kings. "He that walketh with wise men, shall be wise; but a companion of fools shall be destroyed." Dr. Bowditch, the great American navigator, gave instruction in navigation to all the sailors on board the vessel of which he had charge: it is said, that every one of them subsequently became master of a vessel. The observation of almost every person will furnish him with other equally

striking illustrations of the first part of the passage, while the history of crime is every day giving us painful proof of the second. The common proverb says—"A man is known by the company he keeps." The sentiment of the wise man is—A person is *formed*—his destiny is determined, by the company he keeps.

Tribute of Respect.

The following notice was received a little too late for the last number of our paper. We trust that it will not be out of place at this late day. We desire to mingle our sympathies with those of the familiar friends of the departed:

BOSTON, May 9, 1851.

At a meeting of the Masters of the Grammar Schools, held at the Bowdoin School, on the 8th inst., the following resolutions, reported by a committee, consisting of Messrs. George Allen, jr., Samuel Barrett, and William D. Swan, were unanimously adopted.

A. ANDREWS, *Chairman*.HENRY WILLIAMS, jr., *Secretary*.

Resolved, That we have learned, with surprise and deep emotion, the sudden death of our highly esteemed professional associate, Mr. BARNUM FIELD, Master of the Franklin School, in this city, where, for a quarter of a century, he has labored in the cause of public education, with distinguished skill, fidelity, and success.

Resolved, That we should be culpably insensible to the virtues of our deceased co-laborer, whose merits we have known so well, did we not cherish in our memories his many estimable and noble qualities as a man a citizen, a neighbor, and a friend: his reliable integrity; his conscientious purpose; his firm friendship; his generous heart, and his energetic hand.

Resolved, That in the death of Mr. Field, not only have we lost an esteemed associate, and his family a devoted husband and father, but the interests of education a discerning and efficient friend—the cause of truth and good morals a firm and fearless advocate, whose generous influence has long been felt far beyond the immediate sphere of his stated labors, or the city in whose employ he so usefully spent most of the years of his vigorous manhood: and that, besides the consolation of his Christian hope, it is a solace, in his bereavement, to feel assured, that, not having outlived his usefulness where most known, it will continue even where he has been unknown, spreading its blessings in an ever-widening circle, and still accomplishing a good which was the earnest, the constant and the growing desire of his heart.

Resolved, That we deeply sympathize with the afflicted family of our departed friend, and earnestly commend them to the protection and blessing of Him who is the God of the widow, and the Father of the fatherless.

Resolved, That a copy of these resolutions, signed by the Chairman and Secretary, be presented to the family of our late brother, and also offered to the papers of this city for publication.

The Industrial Congress.

The following significant resolutions were passed by the Industrial Congress, which lately held a session in Albany, N. Y. It gives us much pleasure to see this matter taken hold of by this meeting. It seems to have been supposed that education belongs more particularly to men of books, and that men of the plow, or the anvil, have but little interest in it. Now this is a great mistake. Education can never perform her mission, at all competently, until she makes her home among the great masses of our laboring population. Mr. L. A. Hine, of this city, reported the resolutions, which, after an animated and interesting discussion, were unanimously adopted:

1. *Resolved*, That all human improvement is the effect of physical and mental elevation; and, accordingly, we place the *education* of the people at the basis of all human progress.

2. *Resolved*, That we congratulate the State of New York on the establishment of the great principle, that the property in the State shall be held responsible for the thorough education of every child in the State; and we invite all the reformers and philanthropists of other States to adopt and act upon the same principle.

3. *Resolved*, That every child has a natural right to the best education which the science and wealth of the age can provide, and reformers should not cease their labors in the improvement of our educational system, until every school-house shall be a people's college, where a thorough physical and mental discipline, and a complete education, can be obtained by every child.

4. *Resolved*, That we do not distinguish education by sex, but believe that both the male and the female child should receive equal educational advantages, and enjoy precisely the same means of mental discipline and development.

5. *Resolved*. That we recommend the establishment, in every State, of the Common School Library System of New York and Michigan, by which the children are made the messengers of intelligence to thousands of destitute families.

6. *Resolved*, That while we would not oppose the establishment of high schools for the most advanced pupils, we would advocate the institution of still higher schools, in which the duller and more unfortunately organized youth can have the regenerating influences of education energetically adopted and applied to their wants; and this we urge, in order that education may serve to diminish, rather than increase, the inequality of the people.

7. *Resolved*, That all endowments for the education of children shall be considered as inconsistent with progress, unless they are so framed that the advantages arising from them shall be, as far as possible, in their control, equally, and not unequally divided among the masses of both sex.

Book Notices.

TEMPLE MELODIES; A Collection of about Two Hundred Popular Tunes, adapted to nearly Five Hundred Favorite Hymns, selected with special reference to Public and Private Worship. By Darius E. Jones. New York: published by Mason & Law. Cincinnati: Mason & Colburn: 1851.

This is an elegant volume, bound in cloth, and contains about 224 pages. The design of it is to present in permanent connection those standard hymns and tunes which are universally known and loved. Special pains have been taken to provide a copious selection of musical pieces adapted to the services of the sanctuary, the conference room, and the family. The tunes embrace every variety of meter in use, and especially those most suitable for congregational singing. Every lover of sacred psalmody will recognize in this little work a large number of those old familiar tunes which have given intensity and direction to the religious emotions of the people, from the time of Luther downward. The book is so arranged as to present a musical piece and several hymns adapted to it, on the same page. We think it a very admirable work, both in design and in execution, and such a work as every Christian will feel better for having in his possession.

Geometrical Questions.

59. Prove that if a perpendicular be let fall from the right angle of a right-angled triangle, upon the hypotenuse, it will divide the hypotenuse into two segments, which are to each other as the squares upon the other two sides.

60. Prove that if those sides of a trapezoid which are not parallel, be bisected, the line joining the points of bisection, will be equal to one-half the sum of the parallel sides.

61. Let a perpendicular be drawn at the extremity of the base of an equilateral triangle; find the number of degrees in the angle contained by this perpendicular and the adjacent side of the triangle.

62. If two triangles, of equal area, stand upon the same base, prove that the line which joins their vertices is parallel to the base.

63. Prove that the square upon one of the sides about the right angle of a right-angled triangle, is equal to the rectangle contained by the sum, and the difference of the other side and the hypotenuse.

64. Divide any right angle into three equal angles.

65. If a straight line bisects any arc of a circle, and its chord, prove that it will pass through the center of the circle.

66. Prove that the perpendicular which bisects any chord of a circle, will pass through the center of the circle.

67. Prove that the difference of the squares described upon any two sides of a triangle, is equal to the difference of the squares described upon the segments of the other side, made by a perpendicular let fall from the opposite angle.

68. Prove that from any point without a straight line, only one perpendicular can be let fall upon the straight line.

69. If from the angles at the base of any triangle, two lines be drawn, bisecting the opposite sides, prove that each small segment made by the intersection of the two lines, is to its larger segment as one is to two.

70. Prove that the three lines which severally bisect the angles of any triangle, all intersect each other at the same point.

ITEMS.

Foucault's experiment, by which the earth's rotation on its axis is rendered visible, has been repeated, with complete success, by numerous individuals, in different parts of the country. In Cleveland, an iron ball was suspended by a small wire, 26 feet long, from the center of the dome in the cabinet of the College. The June number of Harper's Magazine contains a full and lucid exposition of the whole matter, illustrated with plates. The explanation is simple. Bunker Hill monument is now used to try it, requiring a wire 216 feet long. The public can see it by paying a small fee.

The Rev. Thomas Biggs, D.D., President of Woodward College, has given to the Trustees of that institution his resignation of the situation he has so acceptably filled. His resignation takes place at the close of the present year.

We notice, in the Concord Free Press, of May 21, a fine solution of the second mathematical question in our April number. It was given by a student of Muskingum College.

According to the new school law, now in operation in the State of New York, the common schools are made free to every individual between the ages of four and twenty-one, for at least six months in the year. For the rest of the year, the requisite amount to continue the schools must be raised by rate bills.

The District School Journal and the New York Journal of Education have entered into an arrangement by which they are united, under the title of District School Journal of Education. It is published at the beginning of each month, at Albany, N. Y.: price 50 cents per annum. Editors, S. S. Randall, W. F. Phelps, and J. McKeen.

At a late meeting of the School Board, of this city, "Mr. Burgoyne moved that the recommendation of the Committee on Text Books, to test the merits of Phonotypy, by actual experiment in one of the schools be adopted," carried. The Ninth District School was selected for the trial.

At a late meeting of our School Board, Mr. Goodman, from the Finance Committee, reported the following "Estimated Expense of the Common Schools of Cincinnati, for the year ending January 9th, 1853:"

TUITION FUND.	
15 male principal teachers, at \$780 per year..	\$11,700
14 male assistant teachers, at \$540 - ..	7,560
8 - - - \$420 - ..	3,360
14 female principal - - \$420 - ..	5,880
25 - assistant - - \$300 - ..	7,500
35 - - - - \$240 - ..	8,400
10 - - - - \$216 - ..	2,160
35 - - - - \$192 - ..	6,620
2 - - - in Orphan Asylum.....	600
2 - - - on Walnut Hills.....	360
1 - - - on Mount Adams.....	240
2 music teachers.....	1,350
14 teachers in Night Schools.....	1,150
5 teachers in Central School.....	4,400
	\$61,080
Superintendent's salary.....	800
Secretary, messenger, and stationery.....	700
Fuel, maps, globes, cards, printing, advertising, water, taking census, brooms, buckets, brushes, etc., etc., for 15 houses, at \$300 each,	4,500
	\$67,088

BUILDING FUND.	
Interest on school loan.....	\$ 4,330
Sinking fund, to pay \$20,000 loan, due in May, 1852.....	4,000
Repairs of houses, furniture, grading, paving, fences, stoves, fixtures, cleaning houses, hydrants, cisterns, street and gas tax, etc., etc.....	6,000
Union School-house, on Woodward lot.....	16,000
Sum total of estimated expenditures, Estimated balance, Jan. 10, 1852.	\$11,803
Receipts from the State school funds, interest on deposits, and from section 16.....	12,000
	23,803

Amount required from taxation.... \$73,607
The report was accepted, and the Clerk ordered to forward it to the City Council.

According to the census, Virginia contains 83,000 white persons, over 21 years of age, who can not read or write.

Dr. Joseph Ray, Professor of Mathematics in Woodward College, has been elected a Trustee of the House of Refuge.

We understand that, after the present session, (ending July,) Woodward College will suspend operations, for the present. The suspension will continue two years, or more, for the purpose of permitting the funds to accumulate, in order to enable the trustees to erect buildings more suitable for giving instruction.

One of the editors of this paper will shortly visit other cities, for the purpose of examining schools. He will report progress in the next number. Look out for particulars.

We clip the following from the Concord Free Press. The complaint contained in it is hardly just. We did receive a copy of that paper, containing a very neat solution of a very intricate problem, given in one of our previous numbers, but the number of the Free Press containing the solution did not reach us until after the last number of our paper had gone to press. We were much pleased with the method of solution, but did not copy it, for we only publish those solutions sent to us, primarily, for publication. If we are in any way culpable, we are ready to make the amende honorable.

MATHEMATICAL QUESTION.—Some few weeks since, we published two questions from the School Friend, (Cincinnati,) requesting an answer from some of our

students, or teachers. In the following number of the Free Press we published, and forwarded to the School Friend, a solution of one of those problems, by a student of Muskingum College. In the last number of that journal, we find the same problem as unanswered. We can not account for the fact that the answer which we sent is unnoticed by that paper. Is it because Concord is too insignificant a place, and that Muskingum College, and the Free Press, are too far destitute of celebrity to receive any attention in high places?

Mr. Lorin Andrews was in our city a few days since, and paid us a visit. He has been engaged for the last few months in holding Teachers' Institutes in different parts of the State, at his own cost. He looked as fresh and vigorous as ever, and as though his enthusiasm in the cause of popular education would never abate. There was a light in his eye that spoke the unutterable depth of his hopes, and of his fixed determination to do a great work for educational reform in Ohio.

A "Jerseyman" communicates the following to the Philadelphia Sun:

To cure hens from scratching
Up your garden beds,
You cut their dainty scratchers off,
Just below their heads.

Mr. Hind of Bishop's Observatory, Regent's Park, London, has discovered a new planet, making the fourth of his discovery, and the fourteenth now known between Mars and Jupiter.

The City Council of Cincinnati, have voted a less tax for educational purposes, this year than in any year since 1843. They have voted only one mill on the dollar. There was raised for school purposes in this city in 1844, two mills; 1845, three mills; 1846, three mills; 1847, — mills; 1848, one and a half mills; 1849, two mills; 1850, two mills; 1851, one mill.

This crab movement looks in two directions. One is, the Council seems determined to show the world that the School Board is under a higher power. The other is, the combined influences of all opposition, in places of wealth and ecclesiastical power, are exerting themselves to stop the progress of the educational system in this city, and crush it down to the haunts of poverty and vice. The general expenses of the city are provided for as follows:

"For the purpose of meeting and paying the general expenses of the city, including the Fire Department, two mills. For the purpose of paying the expenses of a day and night watch, one mill. For the purpose of paying loans, expenses, improvements, etc., of the House of Correction and Reformation, three-fourths of a mill. For buildings, tuition, and other expenses of the common schools of Cincinnati, one mill. For improvement, support, and expenses of the poor house, one-half of a mill. For payment of interest on bonds issued by the city, one and one-fourth mills, which the City Clerk shall certify to the Auditor of Hamilton county, to be placed upon the duplicate of said county, for collection for the year 1851."

Ex Governor Slade says that 222 female teachers have been sent out by the National Board of Education.

While the Massachusetts State Legislature at its late session, was considering "a bill providing that no child shall be rejected on account of color or race, from any school in this commonwealth," and about to pass it without opposition, the School Committee of Boston presented the following preamble and resolution:

"Whereas, This Board has heard that the Legislature of the Commonwealth, have now under consideration a bill, the entire provision of which is in the following words: 'No child shall be excluded from any of the public schools of this Commonwealth, on account of color or race'; and whereas, the public schools of Boston are now liberally and happily organized with separate schools for the two principal races of children, offering equal opportunity of learning to both, without compelling a distasteful association of either; and

whereas, if the said bill should become a law, it would greatly disturb and distract the present liberal and happy arrangement of our schools, therefore,

Resolved, That this Board do respectfully memorialize the Legislature, and seriously protest against the enactment of the said bill, and that they do this in the full belief that the results of such enactment would prove equally injurious to the best interests of both races of children."

This bill was debated at some length in the House of Representatives, and then rejected by almost a unanimous vote.

The annual Commencement Exercises in Western Reserve College, will take place on Thursday, July 10th.

The late census of the United States, gives a population of 23,263,498. New York contains 3,042,574; Pennsylvania, 2,258,480; Ohio, 1,951,101; Florida contains 47,120. Ratio of representation 93,702. Number of representatives, 223.

XENIA, June 12th, 1851.

EDS. SCHOOL FRIEND, Gentlemen:

Enclosed I send you a catalogue of the Preble county Institute.

It has rarely been my good fortune to meet a company of teachers so spirited, enterprising, and whole-souled, as those who constituted this institute. Much credit is due to Messrs. D. M. Morrow, superintendent of Union School, Eaton, J. L. Street, G. W. Gaus, L. M. Morrison, and others, for their indomitable perseverance in canvassing the county, and arousing teachers. The ladies constituted no inconsiderable part of this institute, always present, and ready to take a suitable part in the recitations. Was there the same spirit in a few teachers in every county of the State, none would long be destitute of the advantages of teacher's institutes. We may depend on hearing a good report "of progress," from the teachers of Preble.

Yours, very truly, J. HURTY.

For the School Friend.

Education and Common Schools.

I am aware that it is very common,—indeed too much so,—that when attacks upon old established customs are proposed, or important improvements are suggested, let those customs be as erroneous as they may, and those improvements theoretically based upon principles of common sense, and logically sustained by incontestable argument, many, very many, will sneer at them, and cry out—"Humbug! impracticable! impossible!" without even giving any better reason for their exclamations, and their fears, than the short and passionate remark—"It has long been so, therefore must continue to be, notwithstanding the efforts to the contrary." "It is foolish to think of such a change; absolutely unnecessary!" This is their most excellent logic, and strongest argument against any reform proposed! But it is most sincerely hoped that improvements, which shall be proposed in our Common Schools and Education, and which are so much needed, and so vastly important, may not be opposed in future; as in the past; for mankind should learn that their true interests lie in the full and complete development of a thorough system of education, in every department of society. True, indeed, the past has taught us a stubborn fact, that all great revolutions and improvements in science and philosophy have been most violently opposed, and that, too, as long as opposition was of any avail.

In order to effect the improvements we wish, every man in community must not only convince himself by study, and rational argument, of their necessity and practicability, but must also lend his assistance to the great and all-important work—must bring the weight of his "whole energies to bear down upon that lever,

which is destined to raise an entire world of immortals to the proper dignity of intelligent and deathless beings."

"The effort of one man, or of a few men, can not effect the mighty enterprise of evangelizing the world on a subject so much needed."

No: All must be combined, and then it will be easily and speedily accomplished.

We all have our idea of what we would wish our schools to be, and the standard to which we would have teachers attain. Then, as independent men, should we not, regardless of the interests of the whole people, demand of our legislators such enactments as shall subserve the highest good of community. Questions purely political should be always subsidiary to the interests of education; for upon the right training, nurture and culture of our youth, depend the weal—the prosperity of our country. In them are embodied the hopes, the happiness, and the very salvation of the nation. The weapons they will wield are mighty: their proper education will secure all we could wish; the lack of it will produce results which may cause us to tremble.

Some philanthropist has said, and truly said:—"The education required by the people is that which will give them the full command of every faculty, both of mind and body; which will call out their powers of observation and reflection, which will change creatures of impulse, prejudice and passion, to thinking, living, and reasoning men." An education that will lead to objects of pursuit, and habits of conduct favorable to the happiness of each individual, and to the community. "To govern men, there must be either soldiers or school-masters, camps and campaigns, or schools and laws: the cartridge-box or the ballot-box." "Education is the cheap defense of nations." There is no defense, indeed, from error, but in education. Not wars nor prisons, not jails nor work-houses, not laws nor civil magistrates, can secure the person, property, or family of an upright and honest man from the assaults of the malignant and the debased. This is the mission and province of education, and nine-tenths of this labor is done in our Common Schools. These are the streams, from which must flow the greatest good to the greatest mass.

A Boston plebeian said to a Boston patrician, who had but one son, and who was very rich, and whose annual tax for the Common School in his own district was some \$156 per annum, and who was complaining that, having but one son, and educating him at his own expense, he should be compelled by law to pay \$156 per annum to educate his neighbors' children:—"You must not complain, sir: you are as much bound to educate your neighbors' sons as you are to educate your own: for," continued he, "your son inherits a large fortune, and his estate will be amongst our poor children. If, then, our sons are not educated, but immoral, ignorant and vicious men, what guarantee can your son have for his life or property, living among them? None whatever. Your love for your son, then, had you no love for our sons, demands of you that our sons be as well trained as yours, that he may enjoy the fortune and the life he has derived from you."

Here is a volume expressed in a very few words.

"No insurance," says Campbell, "of life or of property, will compare with that insurance of both from wicked men, which a rational and moral education, universally dispenses, confers on every citizen." As a means of self-defense, then, it is the paramount duty of every community, that taxes and imposts be laid upon the whole community to secure a good and efficient system of common school education.

"Taxes for the support of schools are like vapors, which rise only to descend again, to beautify and fertilize the earth." "Education is the great insurance company, which insures all other insurance compa-

nies." No one is so high as not to need the education of the people as a safeguard. No one is so low as to be beneath its uplifting power. "The safety of life and the security of property lie in the virtue and intelligence of the people: for what force has law, unless there is intelligence to perceive its justice—virtue to which that law can appeal." J. E. B.

Litchfield, O.

Mental Arithmetic--The Best Method of Teaching It, etc.

BY ANDREW FREESE,

Principal of the High School, Cleveland.

"Just as the twig is bent, the tree's inclined;"

and therefore, the conclusion adopted by many who have the training of youth, is, that it is their special duty to bend and twist the young minds under their care, in every possible direction.

This is a mistake. The most graceful and symmetrical trees are those which nature's own hand has fashioned. It is true, they often need pruning, and their growth encouraged by enriching and digging the soil about them. They need, also, to be protected from external injuries, lest they become distorted, or their healthy growth impeded. It is just this kind of treatment that the mind should receive in its early cultivation. It has its natural order of developing its several faculties, and each should have its proper stimulants of growth, administered in due proportions and in due time. Not he who bends and twists the mental powers, so much as he who helps their natural development, is the true teacher.

But to get a correct idea of the nature and wants of little minds, they must be studied in living examples. Upham's entire work upon the Philosophy of Mind, does not furnish the teacher with the requisite knowledge. This treats upon mind chiefly in the abstract—of mind in its full development in the vigor of manhood. The teacher wants to know how it unfolds, the order of its coming forth, "its times and its seasons," and the soil best adapted to its growth.

The idea of numbers is among the earliest developments of the mind. This will appear evident to those who have observed the early propensities that children have for counting and reckoning. To be happy, they must have scattered about them pebbles, blocks, shells, and all manner of movable objects. They must arrange them in rows, add them in piles, subtract them, divide them into parcels, test the practicability of making fractions of units, etc. In all these varied operations, they are getting a clear notion of a unit, and making considerable advances in the ideas of increase and diminution of numbers. Even before the law makes them scholars, they have made respectable advances in arithmetic. This natural bent of the youthful mind should not be contravened. Nature's path, where it can be plainly traced, should be strictly followed. To load the memory, for instance, with terms and definitions in science, before the understanding and the judgment have had sufficient education to understand them, is pursuing a wrong course; and the principal reason, we think, why many scholars in our schools fail to become really proficient in the studies pursued, is, that their reasoning faculties have never been developed, or not sufficiently developed to comprehend the leading ideas necessary to a proper understanding of the subjects of study.

The language of the text is explicit and clear to the teacher, and he wonders why his pupils are so stupid as not to comprehend it perfectly. He is surprised to hear a scholar reply, as did one in a certain school, when asked to define syntax, "It treats of the union and right order of words in the destruction of sentences." But who of us, of any experience in teaching, have not had pupils equally thoughtless—pupils who, in repeat-

ing an important definiton, could, by mistake or otherwise, leave out a prominent word, or substitute one, so as to spoil the sense entirely, and often render it perfectly ridiculous. They never *think*—they never reason—reason lies dormant—it has never been called into exercise by a systematic course of study, so as to give power and certainty of action to this most essential part of the intellectual machinery.

As a means to this intellectual development and discipline, nothing equals Mental Arithmetic. Nothing else is so well calculated to arouse the slumbering energies of the mind, and quicken its powers. Who ever saw a class of little earnest arithmeticians, engaged in reciting a lesson conducted by a skillful teacher, without being impressed with the excellence of the exercise? It must awaken the mind to thought—to vigorous thought. Properly studied, earnestly studied, it stirs up the very fountains of intellect, and lights up the counterpane with a glow, in so much, that the naked mind can almost be seen through it. Such exercises, continued daily for a length of time—a year or two—will actually change a class of dull, stupid-appearing scholars, into a class of bright-eyed, smart and active-looking ones. With minds thus developed, tempered and sharpened, they are prepared to grasp every thing that is presented, and successfully accomplish whatever they undertake. Language, to such ones, must mean something; words must be significant of ideas, always, and memory can only lodge them in the mind after a careful inspection of the understanding.

(TO BE CONTINUED.)

MATHEMATICAL DEPARTMENT.

SOLUTIONS.

QUESTION 1, BY GEO. W. DICKINSON.—The earth having been re-peopled, after the flood, by the three sons of Noah and their wives—in all six persons—in what ratio must the population have increased each year, that there may have been a million inhabitants at the end of two hundred years?

SOLUTION, BY THE PROPOSER.—Let $\frac{1}{x}$ represent the annual rate of increase; then, at the end of the first year, the number of inhabitants will be $6 + \frac{6}{x} = 6 \left(\frac{1+x}{x} \right)$. Similarly, at the end of the second year the number will be $6 \left(\frac{1+x}{x} \right)^2$ and so on. Consequently, at the end of two hundred years, the number would be $6 \left(\frac{1+x}{x} \right)^{200} = 1000000$ by the question. From this equation we find

$$\frac{1+x}{x} = \left(\frac{1000000}{6} \right)^{\frac{1}{200}}$$

$$\text{Therefore } \log \frac{1+x}{x} = \frac{1}{200} \log \left(\frac{1000000}{6} \right) = 0.0261092.$$

Hence, $\frac{1+x}{x} = 1.061963$, from which x is readily found to be 16 nearly.

Hence, the rate of increase is $\frac{1}{16}$ nearly.

No solutions have been yet presented to question 2, owing probably to the ambiguous manner

in which it was stated in the May number. It was republished in a correct form in the June No., and a solution will be published hereafter.

New Questions.

QUESTION 1, BY DR. JOEL E. HENDRICKS.—Three boys are sent to market with apples. John has 10, James 30, and Thomas 50, which they have orders to sell at the same price per apple each, at each sale they make, and to sell them all in such a manner that each shall receive the same amount of money. How shall they sell them?

QUESTION 2, BY JOS. G. HARLAN.—The three angles of altitude of a balloon, taken at the same instant by three observers, A, B and C, whose distances asunder on the earth beneath it are, A B 100 yards; B C 118 yards; and A C 169 yards; are found to be, respectively, (A) $53^\circ 53'$, (B) $46^\circ 40'$, and (C) $52^\circ 56'$; required, the height of the balloon.

Solutions to these questions should be forwarded so as to reach here by the 1st Sept.

Mr. Hayward is informed that his criticism on the solution to the question concerning the dog and the duck, published in the School Friend, Oct., 1850, was sent to Dr. Hendricks, and that a very able reply, with a solution by means of the Calculus, has been received, which will be published in the August or September School Friend, if our compositor can manage to put it in type.

NOTE BY THE PRINTERS.

We can: and printers could have no possible cause of complaint, if all writers would furnish as fair copy—as good manuscript—as does Dr. Hendricks.

The Small, Sweet Courtesies of Life.

THE following excellent extract from a letter by the late William Wirt to his daughter, contains advice worthy the attention of every young lady. Life is made up of littles, and happy they who render the small courtesies of life sweet and attractive.

"I want to tell you a secret. The way to make yourself pleasing to others, is, to show that you care for them. The whole world is like the miller at Mansfield, 'who cared for nobody—no, not he—because nobody cared for him.' And the whole world will serve you so if you give them the same cause.

"Let every one, therefore, see that you do care for them, by showing them what Sterne so happily calls 'the small sweet courtesies of life,' those courtesies in which there is no parade—whose voice is too still to tease, and which manifest themselves by tender and affectionate looks, and little kind acts of attention, giving others the preference in every little enjoyment at the table, in the field, walking, sitting or standing. This is the spirit that gives to your time of life,

and to your sex, its sweetest charm. It constitutes the sum total of the witchcraft of woman.

"Let the world see that your first care is for yourself, and you will spread the solitude of the upas tree around you, by the emanation of a poison which kills all the juices of affection in its neighborhood. Such a girl may be admired for her understanding and accomplishments, but she will never be beloved.

"The seeds of love can never grow, but under the warm and genial influence of kind feelings and affectionate manners. Vivacity goes a great way in young persons. It calls attention to her who displays it; and, if it then be found associated with a generous sensibility, its execution is irresistible.

"On the contrary, if it be found in alliance with a cold, haughty, selfish heart, it produces no happy effect. Attend to this, my daughter. It flows from a heart that feels for you all the anxiety that a parent can feel, and not without the hope which constitutes the parent's highest happiness. May God protect and bless you.

"Your affectionate father,

"WILLIAM WIRT."

The Legal Profession.

A complete register of all the lawyers in the United States, just published by Mr. Livingston, the editor of the Monthly Law Magazine, makes the aggregate number of persons in the profession 21,979; being about one lawyer to every fifteen hundred inhabitants. The following shows the proportion of lawyers in the several states:

Alabama, 692; Arkansas, 264; California (returns incomplete,) 68; Connecticut, 335; Delaware, 50; District of Columbia, 61; Florida, 115; Georgia, 698; Illinois, 710; Indiana, 732; Iowa, 243; Kentucky, 886; Louisiana, 479; Maine, 527; Maryland, 543; Massachusetts, 1040; Michigan, 422; Minnesota, 24; Mississippi, 700; Missouri, 584; New Hampshire, 303; New Jersey, 307; New Mexico, 13; New York, 4374; North Carolina, 435; Ohio, 1,639; Oregon, 20; Pennsylvania, 1739; Rhode Island, 112; South Carolina, 433; Tennessee, 735; Texas, 499; Vermont, 442; Virginia, 1268; Wisconsin, 477.

Mr. Livingston estimates that each lawyer in practice has an average income of \$1500. This would make the aggregate cost of law in the United States, reach the enormous sum of over \$30,000,000. Others estimate it at \$1000, at which rate the aggregate income would be the very considerable sum of about \$22,000,000.

The number of ministers of all denominations, in the United States, is estimated at about 30,000, or one to about every 800 of the population. Their average salary does not exceed \$400 per annum; indeed, it is much to be doubted whether it equals that sum. The expense, therefore, of supporting the Christian

ministry, instead of the \$22,000,000 paid for the support of the legal profession, is only \$1,200,000; or nearly *eighteen* dollars for the lawyer, to *one* for the minister! And yet, how many grudge the expense of supporting the Christian ministry, who never think of complaining of the heavy sums paid to the other profession! Which profession does the most for the well being of society, its intelligence, its order, its industry, its morals, its temporal thrift and abundance, to say nothing of higher and more important interests, can hardly be a matter of doubt. We admit the necessity of the legal profession to a certain extent, and respect the intellectual and moral character of many who fill its high positions; we only ask that the poor man should not be forgotten who saved the city. *Con. Journal.*

The Effect of Tides.

Lieutenant Davis, of the United States Navy, delivered a course of lectures at the Smithsonian Institute, in which some singular and interesting information was brought forth. From observation and collected information, he stated that changes were constantly going on along our coast, of the utmost importance to the commerce and navigation of our country. At Sandy Hook, for example, where there is now dry land, there was in 1836 forty feet of water; and this was the main ship channel. In 1837 there was an open ship channel from Barnstable bay to the ocean, and as late as the beginning of this century, in heavy storms, the sea occasionally made a breach over the same place; but the process of construction under the law of tidal action, has closed up this opening entirely, and the place is now an important part of Cape Cod. Other well authenticated instances, derived from a comparison of the recent surveys with the earliest charts of the coast, were mentioned. For example, Monomy Point is constantly extending to the south. Under the operation of the tides, a number of harbors and inlets, particularly along Martha's Vineyard and Long Island, have been gradually closed and converted into ponds. The remarkable fact was stated, that the salt water of these ponds had given place in the course of a few years to fresh water. Another remarkable fact is, that the bottom of these ponds is frequently deeper than the bottom of the adjoining ocean.

This fact is interesting, since it is found that the inhabited parts of sandy deserts, such as the cases of the Desert of Sahara, present similar depressions, the bottom of the valley being, in some instances, below the present level of the sea. The lecturer also stated that these ponds, in the course of the change, become the home in succession of salt water, brackish water, and fresh water animals, and thus afford a beautiful demonstration of the geological formation of basins, such as those of London and Paris, in

which the remains of successive races of animals are found in a fossil state.

Lieut. Davis has deduced from his numerous observations, the law of tidal deposits—namely, that all deposits on the external coast, are made by the incoming or flood tide, and that the increase of deposits is always in the time of the tidal current. Thus, if the tide moves to the north along any part of the coast, projecting points, which may serve as nuclei, are found to elongate in a north and south direction. This action is not confined to our coasts, but Lieut. Davis applies it to the explanation of phenomena noticed in the Llandes of France and Holland.

Another important deduction is, that the deposits at the mouth of the harbors and estuaries, (not rivers,) known by the name of bars, are formed from materials deposited by the ocean. The action of the tide is that of constant deposition. Degradation of the coast is the effect of the waves and storms of the ocean. The general action of the meteorological causes, is to diminish the height of continents, and to transport their materials to the sea, while the action of the tide is just the reverse, and tends to keep up and preserve around the coast the materials which have been brought down in geological periods. In this way the belts or land which skirt our coast have been thrown up, and even Long Island itself has probably been thrown up in the same way.—*Scientific American.*

Pursuit of Knowledge under Difficulties.

The following is a most remarkable and praiseworthy instance of what perseverance and industry, rightly directed, are able to effect. Among the graduating class at the commencement last week, at William College, was one by the name of Condit, from Jersey. This gentleman is a shoemaker, is married, and has a family of four children. Six years ago, becoming sensible of the importance of an education, he commenced learning the simple branches, such as are taught in our primary schools. One by one as he sat on his shoemaker's bench, he mastered grammar, arithmetic, geography, etc., with some occasional assistance from his fellow workmen. At this time he determined to obtain a collegiate education. Without means, and with a large family depending on him for support, he commenced and learned Latin and Greek in the evenings, after his day's labor was over, under the direction of a friend, and after the lapse of a year and a half, prepared himself, and entered the sophomore class of Williams College. He brought his bench and tools as well as his books with him. The students supplied him with work, the faculty assisted him, and together with the fund for indigent students, and some occasional assistance from other sources, he was enabled to go through the college course, and at the same time support his family. He graduated last week on his birth-day, aged thirty-

two. He stood high in his class, and received a part at commencement, but declined. At the farewell meeting of the class, in consideration of his perseverance, talents and Christian character, they presented his wife with an elegant set of silver spoons, tea and table, each handsomely engraved, with an appropriate inscription.

Mr. Condit will now enter the theological seminary at New York, and will, no doubt, make a faithful and popular minister.

What young man in this country will ever, after such an example as this, despair of obtaining an education?—*Springfield Republic.*

Science Important to Mechanics.

The connection of scientific principles with the pursuits of agriculture, has often been shown, and the importance of scientific knowledge to the farmer, has as often been urged and illustrated. But the mechanic has as much need of such knowledge, and more, than those who follow other pursuits. The young man who learns a trade, with the expectation of learning *merely by rote*, or practice, the kind and skill of labor belonging to a particular department of human industry, might as well, at once, renounce his ideas of freedom and independence, and submit to the subordinate condition of a dependent on the caprices or convenience of capitalists. The difference between a mechanic thus educated, and one who concerns himself to learn the science and reason of things, we had almost said, was like the difference between an automaton and a living intelligence. A machine in the hands of others may accomplish much, but it remains a machine still. We have more than once urged this subject on the attention of our readers. As the times and the pursuits of men, the condition of trade, and the state of our population, are perpetually changing, no substantial reliance can be placed on any one department of business. Every young man who would be independent, must have a fund of knowledge, that would enable him to pursue more than one branch, should occasion require it. People may talk about division of labor contributing to perfection of workmanship. But who cares for perfection of workmanship, if the most skillful artizan is to become the most of a slave—the least qualified to resist the oppression which employers may impose—we prefer the term *employers* rather than capitalists, because, generally, the most oppressive employers are men with the least means and the least credit. A knowledge of mathematics is essential to make one a finished mechanic. Let no apprentice suppose that it is not necessary in the trade he is learning. For in any one trade difficulties will arise mathematics alone will solve; while mathematics will enable any natural genius for mechanics to adapt itself to a hundred trades, should occasion require. A good mathematician can survey a farm, and lay out its grounds and its

gardens. He can frame a house and adjust all its interior and exterior to some uniform system of architecture. He can construct a cart or carriage, a plow or harrow, and other utensils of agriculture. He can select the best sites for roads and highways. If he can measure the section of a cone, he can construct casks and barrels of given dimensions, or in working tin or sheet iron, he can, by knowing how large a cone must be, of a given height, to contain the number of solid inches there are in a quart, a gallon, or a bushel of wine or dry measure, at once, cut out his tin of the required dimensions. We propose hereafter to show that natural philosophy, or chemistry, are not of less importance. But even a good mathematician, to say nothing of the important knowledge of trade and pecuniary dealings to which mathematics may contribute, opens to himself a field for industry and enterprise, in some department of which labor is sure to find its reward.—*Farmer and Mechanic.*

Use of Text-books in Schools.

There is much said, at the present day, about the use of text-books in schools. And there are many who would drive them from the school-house altogether, and have oral instruction and inductive reasoning take their place. It is said that ideas are the great desideratum for scholars to acquire, and not words: now we would say that ideas *and* words are both necessary to be learned.

Perhaps we might discover the origin of this opinion by glancing at the past. There is no doubt that there was a great deficiency in all our public schools, fifty years ago. The teachers were men wholly unfit for their station, except, perhaps, in physical ability. There were but very few books used; and those that were used were not best adapted to the young mind. When men who were thus educated grew up, and reflected upon the manner in which they had been instructed, they thought they could remedy the defects in the school system by the introduction of more and better books. With the introduction of books, came the demand for teachers who had "book learning;" and, for a series of years, the chief thing that was required in the examination of teachers was, a knowledge of books. But experience has shown that this system, too, is defective. The true Yankee spirit is ever seeking for the practical, and not for pleasure, or show. Yet we still believe that books may be used, in the present state of things, to great advantage—that they must be used, if we would do the greatest possible amount of good.

If text-books were not used in schools, we should require very different teachers from those that are now employed. In order to be fitted for a teacher, a man would need not merely to have a general understanding of the branches he was to teach; he must be a perfect master of them. The common school teacher must have, in his

own mind, a perfect system of Arithmetic, Grammar, and Geography; and he must have them at perfect command. It would be a poor time to stop and study, and philosophize about the best method of unfolding a new principle in arithmetic to the young mind, when the class were all assembled on the recitation seat, anxiously waiting to catch the words of wisdom as they fell from the lips of their teacher. We have no objection to teachers who are thus qualified; on the contrary, we would rejoice to see such teachers, and such alone, employed. But it *might* be a difficult matter to find a sufficient number of this kind. Moreover, if such teachers, only, were employed, many of us who are now engaged in teaching, *might* be left out of business, so that if we wish to continue in our present calling, it would be well for us to let this matter rest.

If we consider the number of scholars, and the diversity of their ages, capacities, and attainments, we shall see that there is great demand for text-books. It is a fact, admitted by all, that the best way to keep scholars out of mischief is, to keep them busy. But if a teacher has forty or sixty scholars, of all ages and dispositions, he must have a very peculiar faculty to invent business, if he can find something better for each one to be engaged in, than the study of a text-book.

But I have said that it is necessary to learn words. I am well aware that, in saying this, I speak contrary to the opinions of some who consider themselves good judges of an education. Words are not the natural companions of ideas. A man may be replete with good ideas, and still bear a poor comparison with another, who has fewer ideas, but an abundance of words. It is one thing to have the naked form, but it is altogether a different thing to so clothe that form, and cover its deformities, that it shall appear beautiful and attractive.

It is no more than reasonable to suppose, that a man who has spent a long time in the preparation of a book, should find out the best possible manner of expressing the thoughts contained in his book. If he has done so, I can see no objection to requiring a child, who knows nothing about the words belonging to the science of which the book treats, to commit to memory the exact words of the book. I would, indeed, have him understand what the words mean; but it would be vastly easier to teach the meaning of words, alone, than to teach both the words and their meaning.

There is need, too, of exciting a love of books in the mind of a child. It is a lamentable fact, that we are, by nature, lazy beings; and especially is this true in respect of natural love of books. Children do not love books until they find in them the natural aliment of the mind. Now so long as we neglect to show the young tyro that there is thought contained in books, so

long will he be without a natural love of books. If we give him oral instruction, he will find that it is obtained much more easily than it would be from books; and if he is required to study books, he will come to feel that it is a drudgery, rather than a pleasure; and there will grow up in him a dislike of books, which might, otherwise, have been avoided.—*Mass. Teacher.*

THE WIFE OF GENERAL JACKSON.—The influence of this woman over her husband is said to have been very extraordinary. She was of obscure origin, and totally uneducated; yet she inherited from nature those fine and noble traits of her sex, to such perfection that her power was very great. General Jackson was attached to her in early life; but, by some means or other, the matter was interrupted, and she married another, who proved a villain, and the connection was most unhappy. General Jackson became again interested in her; and the consequence was a divorce, when he was married to her. She is said to have possessed none of those accomplishments which are supposed to adorn fashionable life—reared in the back-woods, seeing and knowing little of elegant and refined society. Yet her fine person, strong affections, and good sense, the three great essentials of a woman, enabled her to take and hold with irresistible force, the passions of the bold, turbulent, strong and fiery warrior and statesman to whom she was wedded. It was the lion held in the embrace of the fawn. The influence she exercised is said to have bordered on the superstitious. He imagined that no power or act of his could succeed, or be carried out, averse to her will, or in opposition to her feelings. She seemed his guardian angel, by day and by night, holding in her hands his life, his fate, his all. An intimate friend of his, says that so long as he lived, he wore her miniature near his heart, and never alluded to her except in a manner so subdued and full of reverence, that the listener was deeply impressed with her transcendent worth.

Curious Things in the Crystal Palace.

The London correspondent of the N. Y. Commercial Advertiser, says:

I intended to make a beginning in what I mean shall be my weekly description of curious things in the Crystal Palace, in this letter, but my usual space is nearly occupied. The most wonderful thing I have seen to-day, is the Liverpool gilt to the Exposition—a model of that city, containing in shape, and correctly reduced proportions, not only every house, church, public building, dock and ship yard, but innumerable carts, wagons, horses, donkeys, men, women, and children, in most admirable workmanship. The cost is said to be over £1,200 sterling. A poor woman, a self-taught artist, decrepit from the effects of a fall into a pit of one of the Cornwall mines, whose livelihood it seems has been obtained of

many years by preparing tasteful work for the shops, presented yesterday several specimens of shell work, in flowers and wreaths, surpassing in beauty all that I ever conceived. These flowers are placed upon a table composed of seven thousand pieces of wood, embracing pieces from the oak of the Glasgow Cathedral, the foundation of the old Stockwell bridge, Queen Mary's boy-wood, Alloway and Kirk pulpit, Highland Mary's Thorn, Wiley's Mill, the wreck of the Royal George, London bridge, and the old Bell Tree of the Roseneath. In addition to these, there are a large number of native and foreign woods. The top of the table is four feet six inches, in the center of which is a profile of the queen, surrounded on the covers with the arms of the three kingdoms, with the arms of the cities of London and Glasgow, interspersed. Of the same style also is a chiffonniere, consisting of 5,000 pieces of wood, and a tea caddy of 1,500. On the back of the latter are chased in the veneer, the likeness of Her Majesty and the Royal concert.

THE RICH MAN'S WAGES.—Several gentlemen on board a steamboat on a southern river, were noticing and commenting upon the plantations they were passing. One of them addressed a plain and somewhat rustic looking man who stood near him, and inquired who owned the elegant place then in sight.

"Mr. Johnston is the owner," was the reply.

"Well, Mr. Johnston has a splendid farm then," returned the gentleman.

Presently, another plantation attracted the attention of these gentlemen, and the rough looking man was again applied to for the name of the proprietor.

"Mr. Johnson is the owner," said the man.

"Indeed, the same man that owns the other?"

"Yes, the same man."

"What a fortunate man this Mr. Johnson must be, to have two such establishments as these."

A third, a fourth, and a fifth plantation fell under the notice of the gentlemen, and in reply to their questions they were informed that they also belonged to Mr. Johnson.

"And who takes care of all these farms for Mr. Johnson?"

"I take care of them," answered the plain looking man.

"Well, it must be a great deal of trouble, and he ought to pay you well for it."

"He does not, if he ought," said the man.

"What does he give?" asked the gentleman.

"He only gives me my victuals and clothes!" said the gentleman, who happened to be Mr. Johnson himself.

"Only your victuals and clothes for doing all that! Why he must be too mean a man to live."

WIDTH OF THE ATLANTIC.—The distance from New York to Liverpool is 3,084 miles; from Boston to Liverpool, via Halifax, is 2,849 miles.

ABSTRACT OF THE METEOROLOGICAL REGISTER,

KEPT AT
Woodward College, Cincinnati.
Lat. 39° 6' N.; Long. 84° 27' W.

150 feet above low water mark in the Ohio.

BY JOSEPH RAY, M. D.

May, 1851.

Day of M.	Fahr's Therm'ter			Baro-meter.		Wind.			Weather	Clearness.	Rain
	Min.	Max.	Mean	Mean	Height	A. M.	P. M.	Force			
1	35.48	38.8		29.340		n w	n w	4	fair	9	
2	27.60	48.5		29.440		n w	north	1	fair	8	
3	50.65	57.2		29.219		n e	east	1	cloudy	0	.01
4	43.55	46.7		29.145		n e	north	1	cloudy	0	.15
5	35.63	48.2		29.306		n e	n e	1	clear	10	
6	36.68	50.3		29.377		north	north	1	clear	10	
7	38.74	57.5		29.351		north	north	1	clear	10	
8	53.76	63.8		28.303		west	west	1	clear	1	
9	52.88	67.8		29.265		west	west	1	var'ble	9	
10	57.87	72.5		29.280		west	west	3	fair	9	
11	70.90	78.0		29.251		west	west	2	fair	6	
12	66.92	77.0		29.189		west	west	3	fair	7	
13	64.88	63.2		29.182		west	west	3	fair	2	.78
14	53.74	61.2		29.456		n w	n w	2	var'ble	10	
15	50.81	66.7		29.443		n e	n e	1	clear	8	
16	62.88	75.7		29.159		west	west	4	fair	8	.83
17	64.86	71.3		29.158		s w	s w	3	fair	0	1.41
18	62.72	65.7		29.271		west	west	2	cloudy	4	.06
19	62.88	75.3		29.148		west	west	2	var'ble	6	
20	70.81	71.7		29.166		west	west	2	fair	3	
21	56.82	72.7		29.234		n e	n e	1	var'ble	2	
22	70.91	78.3		28.956		west	west	4	var'ble	2	
23	53.69	57.8		29.308		n w	n w	2	var'ble	3	
24	43.66	57.7		29.517		n w	n w	2	var'ble	10	
25	55.83	69.7		29.466		west	west	1	clear	9	
26	63.86	74.2		29.405		west	west	1	fair	5	.33
27	66.88	76.7		29.291		west	west	2	var'ble	6	
28	72.88	77.8		29.298		west	west	2	fair	7	.15
29	66.86	72.8		29.287		s w	s w	2	var'ble	1	.18
30	66.82	72.3		29.378		n e	n e	1	fair	6	
31	64.84	74.0		29.316		n e	n e	1	fair	8	

EXPLANATION.—The first column contains the day of the month; the second, the minimum or least height of the thermometer, during the twenty-four hours, beginning with the dawn of each day; the third, the maximum or greatest height during the same period; the fourth, the mean or average temperature of the day, reckoning from sunrise to sunrise; the fifth, the mean height of the barometer, corrected for capillarity, and reduced to the temperature of freezing water. In estimating the force of the wind, 0 denotes calm, 1 a gentle breeze, 2 a strong breeze, 3 a light wind, 4 a strong wind, and 5 a storm. In estimating the clearness of the sky, 10 denotes entire clearness, or that which is nearly so, and the other figures, from 0 to 10, the corresponding proportionate clearness. The other columns need no explanation.

SUMMARY.	
Least height of Thermometer,	27°
Greatest height of "	92°
Monthly range of "	65°
Least daily variation of "	10°
Greatest daily variation of "	36°
Mean temperature of month,	65° 84
" " at sunrise,	56° 5
" " at 2 P. M.,	77° 4
Coldest day, May 1st.	
Mean temperature of coldest day,	38° 8.
Warmest day, May 11th.	
Mean temperature of warmest day,	78°
Minimum height of Barometer,	28.956 inches.
Maximum " "	29.593 "
Range of " "	.637 "
Mean " "	29.2873 "
Number of days of rain, 9.	
Perpendicular depth of rain, 3.9 inches.	

WEATHER.—Clear and fair, 19 days; variable 9 days; cloudy 3 days.

WINDS.—N., 3 days; N. E., 6 days; E., $\frac{1}{2}$ day; S. W., 2 days; W., 15 days; N. W., $\frac{1}{2}$ days.

MEMORANDA.—1st, cold, fair day—very windy and dusty—very cold night; 2d, heavy black frost, destroying most of the fruit; 3d and 4th, gloomy and drizzly; 5th to 8th, clear and cold; 10th to 13th, very warm; 13th, showers with some hail; 14th and 15th, very fine

and pleasant; 16th to 18th, warm and wet; 19th to close of month, pleasant, growing weather.

OBSERVATIONS.—The remarkable feature of this month was the unusually cold weather in the first part of it, the temperature falling for the first time in May in the last seventeen years below the freezing point. The mean temperature of the first nine days of May was 52 degrees, and that of the last twenty-two days 71 degrees, a very remarkable difference, and a transition at once from the mean heat of Spring to that of Summer.

The amount of rain is about four fifths of the average, but with the genial temperature of the last two thirds of the month, has been sufficient to push forth vegetation very rapidly.

The frost of May 2d was very extensive, and was preceded by a strong N. W. wind, the direction from which we experience the greatest degree of cold. I have not yet been able to ascertain the limits of the frost, but it extended at least as far West as Independence, Missouri, and was probably felt throughout the greater part of the Valley of the Mississippi.

Spring of 1851.

By Spring, in meteorological reckoning, is meant the period from March 1st to June 1st—92 days. The mean temperature of this period for the last-seventeen years is 53.7 degrees. The mean temperature of the Spring of 1851 is about one degree higher than the average. This at first may appear strange, considering the coldness of April and the first nine days of May; but it will be readily seen by observing that the last two-thirds of May was unusually warm, the mean temperature being nearly that of Summer.

The average amount of rain in the Spring for the last seventeen years is 11.22 inches. For the present Spring the amount is about 9 inches. With one exception, the present Spring is the driest in the last seventeen years.

HOW ABUSES HAVE THEIR ORIGIN.—A late Paris journal relates the following anecdote as an example of the manner in which abuses grow up in governments:

Some twenty years since, a staff officer in the French army was appointed to the command of a fortress in Alsace. He began by making himself acquainted with all the details of the service to which he was called. In one of his inspections he found a soldier standing as sentinel by a worm-eaten stockade, lying about in fragments, which, for no purpose that could be assigned, crossed a court, and divided it in two parts. The commandant inquired of the major concerning the necessity of a sentinel in this place, and was answered that he was standing there in conformity with long usage; that the previous commanders of the place had always found a sentinel at that post, and had kept one there. The reason was not received as satisfactory, and an investigation was ordered; old records were searched; old files of papers and day books examined; and at length it was discovered that thirty five years before, the stockade, which at that time had its use, was repaired and painted. The sentinel was placed by it to prevent any person from touching the fresh paint. Since that time, it is estimated by the French print, that in thirty-five years, sixty-five thousand men had taken their turns in keeping watch over the fresh paint.

NEW SCHOOL BOOK.

RAY'S ALGEBRA, PART FIRST,

On the Analytical and Inductive Method of Instruction; with numerous Practical Exercises.—Designed for Common Schools and Academies. Complete in one volume, 12mo., of 240 pages, Compiled for the Eclectic Series, by Dr. Ray, Professor of Mathematics in Woodward College.

RECENTLY PUBLISHED.

No better evidence is needed that this is an improvement on all similar treatises, than the high commendation it has received from the many intelligent instructors who have examined it. Its merits are rapidly gaining for it adoption, as the standard elementary text-book in Algebra in our best schools and academies.

The following are a few of the recommendations, which are daily accumulating in the hands of the publishers

From J. H. FAIRCHILD, Professor of Mathematics in Oberlin College.

Professor Ray—Sir: I have read, with much satisfaction, your Algebra, Part First. It seems admirably adapted as an introduction to the study; and is such a book as no one but an experienced and successful teacher could produce. The demonstrations are sufficiently scientific, and yet not so abstract as to be unintelligible to the learner. Many authors seem to think that their reputation depends upon making their works above the comprehension of a beginner. Although some new work on algebra appears among us almost every month, yet yours was needed. I am pleased to see that the first edition is quite free from typographical errors, and that the language is, for the most part, logically and grammatically accurate; a remark which will not apply to all the works on algebra recently published in your city.

If you shall succeed as well in *part second* as in *part first*, the book will be welcomed by many instructors.

(Signed)

J. H. FAIRCHILD.

January 5, 1849.

From P. CARTER, Professor of Mathematics, etc., in Granville College.

I have examined, with much interest, the copy of Ray's Algebra presented to me by your politeness. As an elementary work for beginners, and especially for younger pupils, I consider it as one of the best with which I am acquainted. Like all the elementary works of Professor Ray, it is distinguished for its simplicity, clearness, and precision and furnishes an excellent introduction to the larger and more difficult works of this beautiful science.

(Signed)

P. CARTER.

February 24, 1849.

Extract from a communication furnished for the "School Friend", by an accomplished teacher in the "CINCINNATI CENTRAL HIGH SCHOOL", in which Ray's Algebra is used.

"It is but a few months since this book was issued from the press, and although we are acquainted with a dozen other Algebras of similar pretensions, and no mean value, yet from the examination of no one of them have we risen with a much pleasure and satisfaction, as from the examination of this." * * * "In graduating the plan of his work, the author has shown great care and ingenuity, and in its execution, has manifested a familiarity with the wants and difficulties of young students, and a tact in obviating them, which has rarely been equaled. The principles are briefly stated then illustrated and impressed on the mind by a numerous and choice selection of examples. All portions of the work bear ample testimony to the truth of a remark in the preface, that every page was carefully elaborated by many years of toil in the school-room. The statement and illustrations of the principles indicate that the ignorance and misapprehensions of the pupil were met and fathomed by a keen and watchful eye in the teacher, and the proper remedies applied and that these remedies were tested by repeated trials through a long and systematic course of teaching, and finally recorded for the use of students yet to be."

From MR. GREEN, of the English and Classical Academy, Madison.

I have carefully examined Ray's Algebra, Part First. The arrangement adopted in it of the fundamental principles of the science is, no doubt, the best one. The demonstrations accompanying the rules are lucid and accurate, and the examples copious enough to impress them indelibly upon the mind of the pupil. From the character of the author's arithmetic, the public had reason to expect that an algebra from the same author would be a valuable contribution to this department of science, and, in the judgment of the writer, this expectation will not be disappointed.

October 16, 1848.

From MR. ZACHOS, Professor of Mathematics in Dr. Colton's Academy.

I have examined Ray's Elementary Algebra, and the best recommendation I can give it, is the fact that I have adopted it in my younger classes.

(Signed)

J. C. ZACHOS.

September 23, 1848.

From B. C. HOBBS, Superintendent of Friends' Boarding School, Richmond.

I consider Ray's Algebra, Part First, worthy of a place in every school. The author has fallen upon an ingenious method of securing a mental preparation, before the more difficult exercises of the slate are required. The work is clear and comprehensive, and a selection of superior formulae has been made for the solution of difficult problems. Could an objection be made to the work, it would be, that the subject is too much simplified. The cheapness of the work brings it within the means of every one.

(Signed)

B. C. HOBBS.

Ninth Month, 20, 1848.

From MR. S. FINDLEY, Principal of Chillicothe Academy.

After a careful examination of Ray's Algebra, Part First, I cheerfully recommend it as one of the best treatises in that department of science now extant. In its enunciation of rules it is concise and clear; in its demonstrations it is simple and philosophical; and its examples are numerous and varied: so that, in every respect, it excels as a theoretical and practical text-book for beginners, and as such is now in use in the Chillicothe Academy.

(Signed)

SAM'L FINDLEY

February 26, 1849.

From MR. HOOKER, Teacher at Mount Carmel, Ohio.]

Professor Ray—Respected sir: I have, for some time past, been examining your elementary work on Algebra; and can truly say, that, as a *primary* work, it is better suited (according to my opinion) for general use in schools, than any similar work with which I am acquainted. The transition from arithmetic to our primary works on algebra, is, generally, too great; and unless scholars have a "natural tact" for mathematics, their knowledge of numbers generally stops with arithmetic, as few have the courage to undertake to master a theoretical treatise on algebra. * * * I am glad to see you have made the change from arithmetic so gradual, and, at the same time so interesting. I have no doubt but your work will take precedence of all elementary treatises now in use in the Western States.

(Signed)

J. J. HOOKER.

February 28, 1849.

CINCINNATI PUBLIC SCHOOLS

The following is the Report of the Committee on Text Books to the Board of Directors, [May 1, 1849.]

"That they have examined Ray's Algebra, Part First, and find it to be the cheapest and the best elementary work on the science of Algebra that they have used, or that has come under their inspection. It is of a higher order than most elementary works, and at the same time, it is very simple, commencing with seventeen pages of intellectual exercises which serve as a connecting link between Arithmetic and Algebra. The whole work appears to be what the author says it is.—The result of much reflection, and the experience of many years in the school-room." The committee, therefore recommend the adoption of the following resolution:

"Resolved, That Ray's Algebra, Part First, be adopted as a Text Book in the Common Schools of Cincinnati.

WM. PHILLIPS, JR.

S. MOLLITER,

C. DAVENPORT,

A. L. BUSHNELL,

Committee on Text Books."

RAY'S ALGEBRA, PART FIRST, is for sale by booksellers generally.

Teachers of Algebra will be furnished, *gratuitously*, with copies for examination, on application to the publishers

W. B. SMITH & CO.,

Publishers of the Eclectic Educational Series,

Cincinnati O

About the drollest man alive, is a chap now in Chicago, well known in northern Vermont by the name of "Tim Wait." Say what you might to Tim, he was always ready with a repartee, and a good one. On one occasion he came into a hotel in Burlington, looking rather jaded and down-in-the-mouth.

"What's the matter, Tim?" said one of the company, "you look rather the worse for wear."

"Why, you see," said Tim, "I haven't slept a wink for three nights—*last night, to night, and to morrow night.*"

CANTICA LAUDIS.

A New Music Book, by Mason and Webb

CANTICA LAUDIS, OR THE AMERICAN BOOK OF CHURCH MUSIC:

By LOWELL MASON and GEO. JAMES WEBB. The latest and best work of these authors, comprising the largest amount and greatest variety of truly beautiful church music, new and old, ever published in one volume.

From the New York Evangelist.

But few of the tunes, which are almost wholly new, are the compositions of the Editors but are mainly derived from the very highest European sources; and the collection of such a mass of beautiful, chaste, classic music, evinces a degree of familiarity with the compositions of the masters, some of the most erudite character, which, we must say, does honor to the learning and research of the authors. Gems, and beautiful ideas, delicious phrases, have been eliminated from the elaborate compositions of Gluck, Handel, Mozart, Mendelssohn, Schubert, Schumann, and others, too beautiful to be lost, yet almost wholly unknown to the public in this country, and arranged with exquisite practical judgment and skill, and thus redeemed to the use of Christian worship. How much better this is than an indiscriminate collection of new and flimsy productions of unfledged choristers among us, composed at random and by wholesale, no one can be long in determining."

From the Puritan Recorder, (Boston.)

"We sat down to the examination of this latest production of these well known authors with more than usual expectations, excited by the warm praises of those Professors of Music who had examined its proof-sheets in advance of its publication. Nor were we disappointed. We found a richness and variety of psalm and hymn tunes we have never before met, compiled and arranged from the most celebrated composers of other and present times."

From Zion's Herald, (Portland, Me.)

"We have in this work the highest musical talent in our country employed in arranging, for the benefit of the church choir, the productions of those they are proud to call their masters. It is not at all surprising that a work thus produced should be, as stated by those best qualified to judge of its merits, 'the best psalm book ever published in the country.'"

From the Boston Traveler.

"A work which we hesitate not to pronounce the most attractive as well as the most valuable book of Church Music ever issued from the American press."

From Saroni's Musical Times.

"It is not only in this but in all respects, that we do not hesitate to say, that Cantica Laudis is in our judgment the best book ever published."

From the New York Tribune.

"The editors have evidently gone through a long and careful course of musical reading and study; for they have given us, literally, a book of gems chosen from the works of the great masters. The work of selecting, arranging and adapting the mass of materials in this book must have been immense. And it is done with a skill and propriety which do honor to the musical knowledge, experience, critical judgment and good taste of the senior editor, Mr. Mason, by whom, we are informed, it was mainly done. He has displayed an acquaintance and familiarity with the old ecclesiastical schools of the art, both German and Italian, which reflect great credit upon him as an American Musician."

From the New York Courier and Enquirer.

"In preparing this book for the musical public, the compilers have not only done a great service to the cause of psalmody, but to the cause of true musical science, by furnishing a standard work of the highest excellence."

Published by

MASON & LAW,
Pearl Street, New York.
W. B. SMITH & CO.,
56 and 58 Main Street,
Cincinnati, O.

Phonetic School Books.

LONGLEY & BROTHER,

Cincinnati, O.,

ARE now engaged in publishing and selling **PHONETIC SCHOOL AND MISCELLANEOUS BOOKS.** Their First Reader, price 10 c., has been introduced into some of the Boston and other Eastern Schools, and is now used in many primary schools in the West and South. The advantages of phonetic teaching are economy of time to both teacher and pupil, and the acquisition of a more thorough knowledge of orthography and orihoeopy.

Says the Boston Commonwealth, "Children that have enjoyed *two months* instruction in that school, (a Boston phonetic school) we are safe in saying, read with far more ease and propriety than those who have been taught *two years* in the common schools by the usual method—and, mark this, they can do it in books printed *orthographically* in the common defective alphabet!"

"In our primary department we *don't pretend to teach a-b-c scholars the old way of reading* except by the new way first. If I was compelled to teach the old way of spelling and reading, I *would teach the new way first*; by which means I should be, as well as my pupils, the *gainer by two thirds of my time.*"—David Parsons, Principal of the Wells-ville O., Union Schools.

The Second Reader is just published, price 15c. The "Guide to Phonetic Reading," 15c., will enable any teacher to adopt these books with the certainty of great success. The following are other important phonotypic publications: Bible, 8 vo., \$3.00; Testament, \$1.25; pocket do., \$1.00; Pilgrim's Progress, 60c; Vicar of Wakefield, 50c; Gems of Thought, 50c; Bath Fables, 50c; Child hood Hours, 25c; Pope's Essay on Man, 20c; Pronunciation of Geographical Names 15c.

In *Phonetic Shorthand*—Instructor and Key, 50c; Reporter's Companion, 65c; Phonographic Vocabulary, \$1.50; New Testament, \$1.50; Book of Psalms, 30c; Phonographic Teacher, 30c.

Also—The *Weekly Phonetic Advocate*, a Journal of News Literature, Education and Reform, and the most prominent organ of the spelling Reform in the United States. \$1.50 a year in advance. The *Supplement*, a shorthand monthly magazine, \$1.00; with the *Advocate*, 50 cents.

Address LONGLEY & BROTHER, Walnut Street, between Fourth and Fifth, Cincinnati, Ohio.

TO DEALERS IN BOOKS AND STATIONERY.

W. B. SMITH & Co.,
Publishers of School Books,
STATIONERS,

AND
Manufacturers of Account Books,
No. 58 Main Street, Cincinnati, O.

We respectfully solicit the custom of dealers in the above articles, being confident that we can make it an object for them to obtain their supplies of us, in preference to obtaining them at the East.

Country Merchants

Will find at our establishment the various text books generally used in Southern and Western Schools, at lowest Eastern prices. We are the only publishers of McGuffey's Eclectic Series, which has a much larger sale than any similar series published in the United States, and is believed to be the most popular series of school books ever published.

Our stock of Blank Books, Paper, and Stationery generally, is very complete, and offered at very low prices.

Booksellers

Who purchase in large quantities are informed that the great facilities which our publications afford us in obtaining stock, enable us to offer at the *very lowest rates*, and we are confident that they will find it for their interest to obtain supplies of many leading school books of us, in preference to obtaining them at the East. Having enlarged our Blank Book Bindery, we are now regularly manufacturing the various styles and sizes of Account Books generally wanted, as well as a very full assortment of Memorandum and Pass Books. These we are offering at much lower prices than they have ever hitherto been sold in the West. We are determined to compete successfully in quality and price with the best Eastern manufacturers. TERMS—CASH.

W. B. SMITH & CO.,

No. 58 Main st, east side,
Near Columbia st, Cincinnati.

A NEW GRAMMAR.

JUST PUBLISHED,

Professor Pinneo's Larger Grammar:

Which is entitled as follows, viz:

"PINNEO'S ANALYTICAL GRAMMAR OF THE ENGLISH LANGUAGE. DESIGNED FOR SCHOOLS: BY T. S. PINNEO, A.M."

Pinneo's Analytical Grammar

Is, perhaps, the most complete work of the kind for instruction in schools and academies, ever offered to American Teachers.

The following extract is from the Preface:

"This work is intended to succeed the author's PRIMARY GRAMMAR. It is designed, however, to be complete in itself, and does not necessarily require an acquaintance with its predecessor, although such acquaintance will essentially facilitate the study with all learners, and with young people is especially important.

"The title *analytical* is given to it, because that method of teaching is introduced to a far greater extent than is usual in books of this kind.

"The attention of the teacher is respectfully invited to the following prominent peculiarities of this work:

"A COMPLETE VIEW of the well established principles of the English language, in their practical bearing on *analysis* and *construction*, is intended to be here presented. No space is wasted with the discussion of curious or unimportant points, which, however interesting to the critical student, can not but encumber an elementary work.

"2. SIMPLICITY in definitions, examples, exercises, and arrangement, has been carefully studied. A particular preference has been given to English words as technical terms, whenever practicable; and when this is not so, familiar explanations and illustrations are given, so that the learner may understand every step as he advances.

"3. INTEREST in the study, it is hoped, is secured by the variety and attractive nature of the exercises. The didactic, illustrative and practical methods of teaching are united, that each point, being presented in these several ways, may interest and impress the mind.

"4. THE EXERCISES are very full and numerous, much exceeding those in other works on this subject.

"5. ANALYSIS is taught much more minutely and extensively than usual, except in those treatises which are devoted exclusively to this subject. It is introduced in an early part of the study, and exercises and explanations are continued to the close. Its terms, and the arrangement of its parts are also very much simplified.

"6. COMPOSITION is taught in all its elementary principles, and the construction of sentences is introduced at the commencement and continued throughout the work. A large portion of the exercises are designed to teach, at the same time, the *nature, properties, and relations* of words, and the *analysis* and *construction* of sentences.

"Although the leading object of the work is, as already stated, to present, in a simple, concise, and interesting manner, the well established principles of our language, a few novel features have been introduced.

"7. The subject of the arrangement of words in a sentence, is treated of by itself in a separate chapter, with copious rules, illustrations, and exercises.

"8. ERRORS TO BE AVOIDED in the use of words and in construction, are classed separately and prominently, and under them very full exercises in false syntax are given.

"We may here state, also, that a slight departure from the usual method of naming the three past tenses will be observed, which seems required in order to give a correct view of that subject, and to make the minor divisions correspond with the three elementary distinctions of time, the present, past, and future. The reasons for this are given more particularly in the proper place. What appears to be the more correct definitions of the *adjectives* and the *adverb* are also given, the former in accordance with De Saey, and the latter as following legitimately from that."

Pinneo's Analytical Grammar is handsomely printed on fine paper, is neatly and substantially bound, and sold at the low price of THREE DOLLARS PER DOZEN. Copies are put up in thin paper covers, for the purpose of sending by mail, at a very small expense for postage. Regular professional teachers can obtain a copy for examination, without charge, by writing (postage on letters being paid) to the publishers.

Published by

W. B. SMITH & CO.
Booksellers, 58 Main street, Cincinnati

A NEW BOOK FOR SCHOOL LIBRARIES

AND THE

Best Gift Book of the Season

VIEWS OF THE MICROSCOPIC WORLD

A Beautifully Illustrated Work, exhibiting a great variety of interesting objects too minute to be seen by the human eye, as they appear when magnified thousands of times with appropriate descriptions, including an account of the objects magnified. By Professor John Brocklesby. No work has been published more calculated to astonish and interest the youthful mind, and to impress it with a suitable idea of Divine wisdom and skill than this. Also, by the same Author,

ELEMENTS OF METEOROLOGY.

Including the atmosphere, winds, hurricanes, water-spouts, rain, fogs, dew, snow, hail, thunder storms, rainbows, etc. The every day importance of the subjects treated upon in this work render it of great interest to the general reader, and has caused its introduction into many academies. Few persons who commence the Elements of Meteorology lay it down until they have finished the perusal of it.

THE STUDENTS' SPELLING BOOK.

By J. S. DENMAN.

This Spelling Book, just offered to the public, contains nearly all the words in common use in the English language, so arranged as to form an easy method of teaching the correct spelling and pronunciation, and at the same time the true significance of words, and such is the classification, that by learning to spell and define one thousand words the pupil will obtain a knowledge of about three thousand.

BULLIONS' NEW GRAMMAR.

An Analytical and Practical English Grammar. By Rev. P. Bullions, D. D., author of a Latin and Greek Grammar on the same plan. This work is already extremely popular.

BULLIONS' FIRST LESSONS IN GREEK.

Just issued.

AN INTELLECTUAL ARITHMETIC,

Or, FIRST LESSONS IN ARITHMETICAL ANALYSIS.

By Professor J. S. ENOS.

DODD'S ARITHMETIC.

ELEMENTARY AND PRACTICAL.

In which have been attempted various improvements in arrangement and nomenclature. Teachers are particularly requested to examine this work. It is introduced by some teachers not given to change except for good reasons.

OLNEY'S QUARTO GEOGRAPHY.

Illustrated with colored maps, containing only such things as the pupil is expected to learn. This work is by the author of the celebrated Geography and Atlas, and is almost universally preferred to any other quarto geography.

COMSTOCK'S NATURAL PHILOSOPHY

Comstock's Chemistry, Comstock's Botany, Geology, Mineralogy, Physiology and Natural History. The new and revised editions of Comstock's works, meet the highest approbation of teachers, and continue to be probably the most popular scientific books ever published.

The above works form a series embracing most of the subjects studied in schools, and which might justly be termed the ELECTRIC series, from the fact that teachers are at once persuaded on examination of their excellent arrangement and complete adaptation to the wants of the school room.

PRATT, WOODFORD & CO.,

Publishers,

No. 4 Courtlandt St., New York.

NEW EDITION OF RAY'S KEY.

Just published, a new edition of Ray's Key, containing solutions to the questions in Ray's third part Arithmetic, and to some of the more difficult questions in part second; also, an appendix embracing numerous slate and blackboard exercises, suggestions, etc., etc. New edition, adapted to the revised and improved editions of the author's Arithmetic.

Published by W. B. SMITH & CO., 58 Main st. Cincinnati

MORGAN & OVEREND, PRINTERS.